COMMONWEALTH OF VIRGINIA

Information Technology Resource Management (ITRM)

TECHNOLOGY MANAGEMENT

PROJECT MANAGEMENT STANDARD

Virginia Information Technologies Agency (VITA)

Reviews

- This publication was reviewed and approved by the manager of the Enterprise Architecture Division.

- Online review was provided for agencies and other interested parties via the VITA Online Review and Comment Application (ORCA).

Publication Version Control

Questions related to this publication should be directed to the manager of VITA's Enterprise Architecture (EA) Division. EA notifies Agency Information Technology Resources (AITRs) at all state agencies, institutions and other interested parties of proposed revisions to this document.

This following table contains a history of revisions to this publication.

Version	Date	Revision Description
Original	10/28/2004	Base Document
Revision 1	04/04/2006	Update requirements concerning project oversight committees, project cost benefit analysis, and Independent Verification and Validation (IV&V).
Revision 2	10/26/2007	Update requirements concerning Commonwealth IT portfolio management tool, usage of terms, and removes Appendices to separately managed documents.
Admin 2.1	07/28/2008	Correct typographical error
Revision 3	01/12/2011	Implement Commonwealth Project Governance Assessment methodology per legislative mandate.
3.1	4/18/2012	Administrative changes only
3.2	8/28/2013	Minor edits to reflect the existence of the new IT Program Management Standard
Revision *4* ~~3.3~~	2/23/2016	Update changes to the Code of Virginia, Major IT Project definition and new process flow diagrams
Admin *4.1*	8/23/2016	Correct administrative errors
Admin 4.2	*10/17/18*	*Replace Secretary of Technology with Secretary of Administration. Added Zero dollar threshold on Cloud procurements. Made other administrative changes.*

Identifying Changes in This Document
See the latest entry in the revision table above

- Specific changes in wording are noted using italics and underlines; with italics only indicating *new/added language and italics that is underlined* indicates language that has changed.

- Vertical lines in the left margin indicate the paragraph has changes or additions. Specific changes in wording are noted using italics and underlines; with italics only indicating new/added language and italics that is underlines indicating language that has changed

Preface

Publication Designation

ITRM Project Management Standard CPM 112-*04.2*

Subject
Management, governance, and oversight of Information Technology Projects

Effective Date
10/17/2018

Supersedes
ITRM Project Management Standard CPM 112-*04.1*, August 23, 2016

Scheduled Review:
This standard shall be reviewed on an annual basis.

Authority
Code of Virginia, §2.2-225 (Powers and duties of the Secretary of Administration

Code of Virginia §2.2-2006 Definitions

Code of Virginia, §2.2-2008, Additional Duties of the CIO relating to PMD, Repealed by Acts 2016, c. 296, cl. 2

Code of Virginia, §2.2-2007 (Powers of the CIO)

Code of Virginia, §2.2-2010 (Additional powers of VITA) Repealed by Acts 2016, c. 296, cl. 2.

Code of Virginia, §2.2-2015 Authority of CIO to modify or suspend information technology projects; project termination. Repealed by Acts 2016, c. 296, cl. 2

Code of Virginia, §2.2-2016 Division of Project Management, to review and recommend Commonwealth information technology projects proposed by state agencies and institutions.

Code of Virginia, §2.2-2016.1 Additional powers of the CIO relating to project management

Code of Virginia, § 2.2-2017 (Powers and duties of the Division

Code of Virginia, §2.2-2018.1 Project and procurement investment business case approval

Code of Virginia, §2.2-2012, §2.2-2020. Procurement approval for information technology projects

Code of Virginia, §2.2-2021 Project Oversight Committees

Code of Virginia, §2.2-2699.5 Information Technology Advisory Council (ITAC)

Scope
This standard is applicable to all Executive Branch state agencies and institutions of higher education (hereinafter collectively referred to as "agencies") that are responsible for the management, development, purchase and use of information technology resources in the Commonwealth of Virginia. This standard does not apply to research projects, research initiatives or instructional programs at public institutions of higher education.

Purpose
This standard establishes direction and technical requirements which govern the acquisition, use and management of information technology resources by executive branch agencies.

General Responsibilities

Secretary of Administration ~~Technology (SoTech)~~

Designate specific projects as enterprise information technology projects; prioritize the implementation of enterprise information technology projects; establish enterprise oversight committees to provide ongoing oversight for enterprise information technology projects. At the discretion of the Governor, the Secretary shall designate a state agency or public institution of higher education as the business sponsor responsible for implementing an enterprise information technology project, and shall define the responsibilities of lead agencies that implement enterprise information technology projects.

Chief Information Officer of the Commonwealth (CIO)
Direct the development of policies and procedures that require the Division of Project Management, behalf of the CIO, to review and recommend Commonwealth information technology projects proposed by state agencies and institutions. This Commonwealth Project Management Standard establishes a methodology for the initiation, planning, execution and closeout of information technology projects and related procurements. CIO can approve or disapprove the selection or termination of any Commonwealth information technology project. CIO can also disapprove any Commonwealth information technology project that does not conform to the Commonwealth strategic plan for information technology strategic plans of state agencies or public institutions of higher learning.

Virginia Information Technologies Agency (VITA)
At the direction of the CIO, VITA leads efforts that draft, review and update technical and data policies, standards, and guidelines for information technology and related systems. VITA uses requirements in IT technical and data related policies and standards when establishing contracts; reviewing procurement requests, agency IT projects, budget requests and strategic plans; and when developing and managing IT related services

Information Technology Advisory Council (ITAC)
This council advises the CIO and Secretary of Administration on the development, adoption and update of statewide technical and data policies,

standards and guidelines for information technology and related systems.

Executive Branch Agencies
Provide input and review to the CIO during the development, adoption and update of statewide

technical and data policies, standards and guidelines for information technology and related systems.

Table of Contents

Section 1. Introduction

1.1 Purpose of the Commonwealth of Project Management Standard

Commonwealth Project Management Standard is a document developed and adopted by the Chief Information Officer (CIO) pursuant to 2.2-2016.1 that describes the methodology for conducting information technology projects, and the governance and oversight used to ensure project success. Enterprise means an organization with common or unifying business interests. An enterprise may be defined at the Commonwealth level or Secretariat level for program and project integration within the Commonwealth, secretariats, or multiple agencies. The Commonwealth of Virginia Project Management Standard (COV ITRM Standard CPM 112-03.6 establishes the required processes and documentation for all information technology projects (IT Projects) in the Commonwealth of Virginia. The expected outcomes or results of implementing this standard are increased IT Project success through sound investment decisions, management commitment and oversight, implementation of a best practice based project management methodology, and the establishment of defined processes that measure and evaluate project progress throughout the project lifecycle. Implementation of this standard will ultimately achieve a higher return on the Commonwealth's IT investments by promoting the use of sound management practices appropriately scaled to fit each project and at a minimum, provides a periodic review by the CIO of agency Commonwealth information technology projects. This standard uses risk and complexity to determine the degree of oversight and governance required in project initiation, detailed planning, execution and control, and closeout. The goal is to apply just the right amount of management control needed for a specific project to succeed. In summary, by using complexity and risk to determine what effort and oversight to apply, the Commonwealth will neither over manage nor under manage an IT Project.

1.2 Authority

This standard is promulgated under the authority of the Commonwealth of Virginia Chief Information Officer (CIO).

1.3 Applicability to State Agencies

The PM Standard is applicable to all state Agencies that are responsible for the management, development, purchase, and use of information technology investments in the Commonwealth.

1.3.1 Applicability to Institutions of Higher Education

The PM Standard is applicable to all state institutions of higher education that are responsible for the management, development, purchase, and use of information technology investments in the Commonwealth; however, this standard does not apply to research projects, research initiatives, or instructional programs at public institutions of higher education.

Institutions of higher education that have executed Management Agreements with the Commonwealth are permitted to implement their own Project Management Standards and Guidelines and shall provide copies of those documents to the CIO of the Commonwealth. They shall be exempt from the reporting requirements of this standard and shall, instead, report on a

quarterly basis as provided in those Management Agreements using the Project Status report form in the Commonwealth Technology Portfolio.

1.4 Project Management in the Commonwealth of Virginia

The methodology and governance structure for IT Projects are derived from the *Code of Virginia*. The Commonwealth Technology Management Policy (COV ITRM Policy GOV2002-02.1), the Commonwealth Information Technology Investment Standard (COV ITRM Standard CPM 516-01), the Commonwealth Project Management Guideline (ITRM Guideline CPM 110-03), and the Project Manager Selection and Training Standard (COV ITRM Standard CPM 111-03) directly affect project management practices and activities.

The Commonwealth Technology Management Policy establishes a comprehensive and uniform policy for the management and oversight of technology investments in the Commonwealth of Virginia. The Commonwealth Information Technology Investment Standard (COV ITRM Standard CPM 516-01) defines the Commonwealth of Virginia's IT Investment Management (ITIM) approach for managing information technology investments throughout their lifecycle.

The Commonwealth Project Management Guideline defines a methodology for the management of projects by executive branch Agencies in the Commonwealth of Virginia. The guideline is aligned with the Project Management Body of Knowledge (PMBOK®) published by the Project Management Institute and industry best practices. Information provided in the guideline serves as a common reference point and language for the discussion and implementation of project management in the Commonwealth.

The Commonwealth Project Manager Selection and Training Standard will establish the minimum qualifications and training standards for Project Managers of IT Projects. The standard has four sections that accomplish this requirement. The sections are:

- Project Manager Training;
- Project Manager Qualification;
- Project Manager Qualification Testing; and,
- Project Manager Selection.

1.5 What is a Project?

A project is a temporary endeavor undertaken (by an organization) to develop a unique product or service. Temporary means that every project has a definite beginning and a definite end. Unique means that the product or service is different in some distinguishing way from all other products or services provided by the subject organization.

Operations and maintenance activities, supporting an existing product or service within an organization, are not projects so long as the focus of the activity is the continued use of the current product or service. Significant cost for a procurement or operational activity does not make the procurement or activity a project. For example, routine upgrades and network component replacements, conducted as a matter of course in the maintenance and operation of IT assets, are not necessarily projects. However, an activity is a project if that activity leads to

modification of an existing product or service, resulting in a new unique capability within the operational or organizational environment. Utilization of project management principles and techniques in the management of operations and maintenance activities is encouraged.

The PM Standard establishes the required Agency processes and documentation for the management of all IT Projects in the Commonwealth of Virginia. The applicability of the standard is first determined by the classification of an endeavor as an IT Project by completion of the Project or Procurement Determination (PPD) form.

While the Commonwealth Project Management Standard may appear to be primarily focused on the preparation of documents, the true key to successful project management is diligent preparation and careful execution of detailed plans. Documentation is merely proof of the thought processes that have gone into the planning and the yardstick against which execution of the project is measured, as it progresses. In the Commonwealth of Virginia, the official source and repository of project documentation is the Commonwealth Technology Portfolio (CTP).

1.6 Program Management

Programs are closely related to projects. A program is a group of related projects managed in a coordinated way to obtain benefits and control not available from managing them individually. Programs may include elements of related work outside of the scope of the discrete projects in the program. Please refer to the Commonwealth IT Program Management Standard for the required processes and documentation for IT Programs.

1.7 Procurement Management

IT procurements are governed by policies and procedures established by VITA Supply Chain Management.   The *Code of Virginia* § 2.2-2012 (Procurement of information technology and telecommunications goods and services; computer equipment to be based on performance-based specifications states the following): Information technology and telecommunications goods and services of every description shall be procured by (i) VITA for its own benefit or on behalf of other state agencies and institutions or (ii) such as other agencies or institutions to the extent authorized by VITA. Such procurements shall be made in accordance with the Virginia Public Procurement Act (§ 2.2-4300 et seq.), regulations that implement the electronic and information technology accessibility standard of the Rehabilitations Act of 1973 (29 U.S.C § 794d), as amended, and any regulations that may be prescribed by VITA. In no case shall such procurements exceed the requirements of the regulations that implement electronic and information accessibility standards of the Rehabilitation Act of 1973, as amended. The CIO shall disapprove any procurement that does not conform to the Commonwealth strategic plan for information technology developed and approved pursuant to §2.2-2007 or to the individual strategic plans of state agencies or public institutions of higher education. There is zero dollar threshold procurement authority for Cloud procurements.

§2.2-2007 The CIO shall have the authority to enter into and amend contracts for the provision of information technology services. CIO approval to award a contract will not be granted until the IT Project has received Project Initiation Approval. Where the IT Project's success is significantly dependent on a major procurement, the Project Charter must identify either the manager of the

procurement or the VITA SCM point of contact as part of the project team or IAOC. All contracts awarded over $1 million must be reviewed by the Office of the Attorney General (OAG).

§ 2.2-2020. Procurement approval for information technology projects.

The agency shall submit a copy of any Invitation for Bid (IFB) or Request for Proposal (RFP) for procurements associated with Major IT Projects to VITA the Division of Project Management (PMD). The Division supported by subject matter experts shall review the IFB or RFP and recommend its approval or rejection to the CIO.   Agency shall submit a copy of proposed final contract, and/or proposed statement of work associated with Major IT Projects for PMD review. Agency shall also submit all amendments to contracts or new statements of work for PMD review. PMD will recommend approval or rejection of the contract, amendment, or statement of work to the CIO. The proposed contract, statement of work, or amendment can be executed only after the CIO's written approval. A project must be granted project initiation approval before a contract or statement of work supporting that project can be executed. From time to time, and as directed by the Chief Information Officer of the Commonwealth, Agency will also provide for PMD review and CIO approval RFPs, IFBs, contracts, amendments thereto, and statements of work for projects that are not Major IT Projects.

1.8 Grant Applications

Agencies are required to identify grant applications as potential information technology investments in their strategic plans, when the values of those potential projects exceed $250,000 or potential procurements exceed $100,000. The Agency must submit information concerning the planned investment through the Commonwealth Technology Portfolio, and obtain Investment Business Case Approval for the technology investment prior to submitting any grant application containing a proposed technology investment. The entry in the Commonwealth Technology Portfolio must include a copy of the grant application. Should the grant be awarded, the Agency must update the investment entry in the Commonwealth Technology Portfolio.

Section 2. Commonwealth IT Project Management Lifecycle

2.1 Overview

Project Management activities begin at the Initiation Phase, when an agency decides to move forward with a project that has been granted Investment Business Case Approval as provided by the Commonwealth Information Technology Investment Management (ITIM) Standard. (Activities relating to strategic planning and the Pre-select, Select and Evaluation phases of the ITIM lifecycle are out-of-scope to the Project Management Standard.) The Project Management Lifecycle includes the following phases: Initiation; Detailed Planning; Execution and Control; and Closeout. The project is formally _closed_ when the Project Closeout Report is approved. A Post-Implementation Review (PIR) is required six to twelve months after the completion of the project. Once the project is complete, the asset is managed as a part of normal Agency operations and maintenance, and its performance is monitored throughout the rest of its lifecycle as part of the ITIM process.

The PM Standard addresses the governance and management of any IT Project and is not synonymous with a specific System Development Lifecycle (SDLC.) There are several SDLC models, any one of which could be appropriate for use in a given information technology project. The selection of an appropriate model is based on the nature of the project and the environment in which the project tasks are performed. Agencies are responsible for establishing the specific model standards and selection criteria for determining which model is appropriate for a given project. The activities and tasks of a selected SDLC model are reflected in the project Work Breakdown Structure (WBS) and project schedule.

2.2 Major Information Technology Projects

Major IT Projects are defined in the _Code of Virginia (§ 2.2-2006)_ as "any state agency information technology project that (i) meets the criteria and requirements developed by the Commonwealth Chief Information Officer (CIO) pursuant to § 2.2-2006 or (ii) has a total estimated cost of more than $1 million."

The designation of a project as a Major Information Technology Project drives certain reporting requirements defined in the Code of Virginia. The governance and oversight of information technology projects is primarily driven by the Risk/Complexity model using the Commonwealth Project Governance Assessment.

§ 2.2-2006: _Major information technology projects are defined in the Code of Virginia as projects with a total estimated cost greater than $1,000,000. Additionally, the Secretary of Administration may designate a project with a total estimated cost of less than $1,000,000 as a "major information technology project" for any of the following reasons_:

1. _The project has high risk or high complexity;_
2. _The project is critical to the immediate security or safety of Commonwealth citizens;_
3. _The project is a component of a larger Commonwealth IT Program; or,_
4. _The Governor has requested additional oversight of the project._

The designation of a project as a "Major Information Technology (IT) Project" drives certain reporting requirements established and defined in the Code of Virginia. The governance and oversight of IT projects is primarily driven by the Risk and Complexity model determined using the Commonwealth Project Governance Assessment (CPGA) methodology.

2.3 Overlap between ITIM and Project Management

The Commonwealth Information Technology Investment Management (ITIM) Standard (COV ITRM Standard CPM 516-00) defines the phases in the ITIM lifecycle of a technology investment. IT Project Management is contained within the Control phase of the ITIM lifecycle.

2.4 Project Selection and Investment Business Case Approval

Project Selection and Investment Business Case Approval occur under the auspices of the ITIM process and are outside the scope of the PM Standard. The agency Information Technology Summary and Appendix A which extracts projects and procurements from the Commonwealth Technology Portfolio are incorporated within the Agency Strategic Plan, which is submitted to the Department of Planning and Budget (DPB). If a proposed project is not part of the Agency Strategic Plan, the Agency will develop a the appropriate documentation for Investment Business Case Approval, undergo a Select Risk/ Complexity Assessment in the Commonwealth Technology Portfolio, and submit those documents for CIO approval.

Project Selection and Investment Business Case Approval

Project Process

BRT Created & Approved Effort Added to Strategic Plan

Project (PPD) — Yes →

IBC
Investment Business Case
Created in CTP

Investment Biennium Funding Created in CTP

Select Risk & Complexity Assesment

ITIM
Project Evaluation
Initial Project Category

ITIM
Decision Brief
CIO Letter
Seeks CIO Approval

NO

Procurement Process
Assumes an associated Procurement to a new project

Procurement (PPD)

PBA
Procurement Business Alignment
Created in CTP

CIO
Review Approval to Strategic Plan

Legend

Agency Activities

VITA Activities

Decision Points

Reviews, approvals, and signoffs are an important part of the process and are a factor to be considered when walking through the Commonwealths Project Management Standard and associated processes.

The timing associated with these also need to be accounted for providing sufficient lead time for them to occur

Section 3. Commonwealth Project Governance Assessment (CPGA)

In order to improve the potential for project success and focus planning, governance and oversight activities, the Commonwealth Project Governance Assessment was developed to evaluate the potential risk and complexity factors that might impact a project, and assign a degree of governance and oversight requirements commensurate with the specific project. The desired result is to neither overload nor short-change any given project the appropriate amount of project management discipline, governance and oversight.

As it relates to Project Management, Risk is defined as an uncertain event or condition that, if it occurs, could have a positive or negative effect on a project's objectives.

Complexity is defined as the technological and management characteristics of the proposed project and the potential impacts, both positive and negative, that these characteristics could have on the project's risks. Examples of the technological characteristics include, but are not limited to the number and type of technologies that the project will employ, the maturity of those technologies, the stability of those technologies and the agency's experience with these technologies. Examples of management characteristics include the number and relationships of the project's stakeholders, maturity and stability of the organization, locus of project stakeholders (i.e., internal to the agency, internal to state government but external to the agency, external to state government, etc.), number and type of funding sources being applied to the project, and so forth. Complexity is a Risk modifier in that it can exacerbate or mitigate the impact of Risk on the successful completion of the project.

The CPGA Risk Complexity Assessment utilizes a series of detailed questionnaires to evaluate the project's Risk and Complexity levels and classify it into one of nine combinations, High/High, High/Medium, High/Low, Medium/High, Medium/Medium, Medium/Low, Low/High, Low/Medium and Low/Low. Based on the results of the Risk/Complexity assessment, projects with estimated costs in excess of $250,000 are placed in one of four governance and oversight categories. The Project Management Consultant may recommend an override of the project category assignment and will provide detailed justification for that recommendation.

Project Categories 1 - 4				
		Complexity:		
		High	Medium	Low
Risk:	High	1	2	2
	Medium	2	3	3
	Low	3	4	4

Four CPGA assessments are conducted at strategic points in a project's lifecycle because the Risk/Complexity assessment is based on dynamic characteristics that can change as the project progresses, time passes and changes occur in the agency and surrounding environment. These assessments allow the Agency and the Commonwealth to "right-size" the governance and

oversight applied to the project based on the current situation. Because the governance and oversight requirements applied to a project may change, the Project Manager should include a contingency in the project budget and schedule to accommodate potential increases in reporting and IV&V.

The CPGA Risk/Complexity Assessments occur during the Project's Pre-Select, Initiation and Detailed Planning Phases, plus an optional, event-triggered Assessment that can be directed (mandated) by the Secretariat Oversight Committee or the CIO. Such an event-driven assessment may be triggered from the submission of a Significant Baseline Change Request or other situation at the discretion of the Secretariat Oversight Committee or the CIO.

3.1 Select Risk/Complexity Assessment

As part of the Select Phase of the ITIM lifecycle, proposed projects will complete a CPGA Select Risk/Complexity Assessment. This assessment will determine the project's risk and complexity level and assign projects into the appropriate Project Category. The Select Risk/Complexity Assessment is a collaborative review of the Investment Business Case between the Project Sponsor, Project Manager-designee (if identified) and the PMD Project Management Consultant. Using the CPGA Risk/Complexity Assessment questionnaires and their knowledge of agency priorities and business needs, the assessment participants will review the proposed project and analyze the factors that could impact the success of the proposed project. The resulting Project Category designation will establish the oversight and governance to be applied to the project during the Initiation Phase, and the preliminary path to Project Initiation Approval.

3.2 CPGA Project Initiation Approval Risk/Complexity Assessment

As the agency refines its business case, assesses alternatives to address its business need(s) and selects the alternative best suited to satisfy the business problem, a number of project details come into clearer definition. The Business Case Alternatives Analysis, Project Charter and supporting documents capture these technological and organizational details and refinements, the agency's consideration of this information and the resulting decisions.   The CPGA Project Initiation Approval Risk/Complexity Assessment is a collaborative review of the draft Business Case Alternatives Analysis, Cost Benefit Analysis (if applicable) Project Charter and supporting documents between the Project Manager-designee and the PMD Project Management Consultant. The Project Sponsor may also participate at his/her option. This assessment will confirm or adjust the project's Risk/Complexity level and resulting Project Category, confirm or revise the Project Initiation Approval path and set requirements for Detailed Planning.

3.3 CPGA Planning Risk/Complexity Assessment

After Project Initiation Approval has been granted, the project undertakes a period of Detailed Planning. During this phase, the Project Manager's focus is on identifying, estimating, sequencing and scheduling the tasks that will be performed in the Execution and Control Phase, as well as developing the detailed budget, and other plans that will guide and support the project through the remainder of its lifecycle. No actual project execution may occur during Detailed Planning. The CPGA Planning Risk/Complexity Assessment is a collaborative review of the draft Detailed Project Plan by the Project Manager and the PMD Project Management Consultant. The Project

Sponsor may also participate at his/her option. This assessment will confirm or adjust the project's Risk/Complexity level and resulting Project Category, which, in turn, sets the oversight and governance requirements for the Project Execution and Control Phase.

3.4 CPGA Event-Driven Risk/Complexity Assessment

Upon completion of Detailed Project Planning and approval of the plans, the project moves into Execution and Control. If a Significant Baseline Change is required to the project, the submission of a Change Control Request may trigger an Event-Driven Risk/Complexity Assessment at the option of the Secretariat Oversight Committee or the CIO. (See Section 5.4.2.2 regarding Significant Change Control Requests.) The CPGA Event-Driven Risk/Complexity Assessment is a collaborative review of the draft Change Control Request by the Project Manager and the PMD Project Management Consultant. The Project Sponsor may also participate at his/her option. Other project documents are also in-scope to this assessment, including the original Detailed Project Plan, Project Charter, Project Initiation Approval memorandum and Project Status Reports. This assessment will confirm or adjust the project's Risk/Complexity level and resulting Project Category, which, in turn, sets the oversight and governance requirements as the project moves forward in the Execution and Control Phase.

Section 4. Governance of Commonwealth Information Technology Projects

4.1 Commonwealth-level Projects

For the purposes of governance and oversight, projects that have an estimated cost in excess of $250,000 are considered Commonwealth-level Projects and are categorized in one of four categories, based on their CPGA assessment of Risk and Complexity. The Chief Information Officer may also designate an initiative as a Commonwealth-level project, subject to the CPGA Risk and Complexity assessment.

Specific requirements for planning documentation, oversight and governance follow in the chapters dedicated to individual project categories.

The Commonwealth Strategic Plan for Applications defines two special types of applications, Enterprise and Collaborative. Projects that deliver these types of applications and have an estimated cost in excess of $250,000 will be governed by the Commonwealth Project Management Standard as Commonwealth-level projects and may be designated as Major IT Projects. Special considerations for oversight and governance of these projects are defined in Section 10.

4.2 Agency-level Projects

Projects that have an estimated cost less than $250,000 are considered Agency-level projects and, are exempt from the governance and oversight provisions of this standard. See Section 11.

4.3 Roles and Responsibilities

4.3.1 Secretary of Administration

§2.2.225 Commonwealth Technology Management is governed by the Secretary of Administration, who sets technology strategy and reviews and prioritizes major technology investments, including project development and associated procurements proposed by Commonwealth executive branch Agencies and institutions of higher education.   Only the Secretary of Administration can designate and approve an Enterprise level project. Review and approve the Commonwealth strategic plan for information technology, as developed and recommended by the Chief Information Officer pursuant to §2.2.2007. The CIO has authority for project selection and IT procurements. Decisions regarding termination of Major IT Projects at institutions of higher education will be made in consultation with the institution's board of visitors.

Designate specific projects as enterprise information technology projects, prioritize the implementation of enterprise information technology projects, and establish enterprise oversight committees to provide ongoing oversight for enterprise information technology projects. At the discretion of the Governor, the Secretary shall designate a state agency or public institution of higher education as the business sponsor responsible for implementing an enterprise information technology project and shall define the responsibilities of lead agencies that implement enterprise

information technology projects. For purposes of this subdivision, "enterprise" means an organization with common or unifying business interests. An enterprise may be defined at the Commonwealth level or Secretariat level for programs and project integration within the Commonwealth, Secretariats, or multiple agencies.

- Review and approve the Commonwealth strategic plan for IT, as developed and recommended by the CIO pursuant to §2.2-2007
- Communicates regularly with the Governor and other Secretaries regarding issues related to the provision of IT services in the Commonwealth, statewide technology initiatives, and investments and other efforts needed to achieve the Commonwealth's IT strategic goals.
- Establishes IAOC and SOC for enterprise projects only

4.3.2 Commonwealth Chief Information Officer

§2.2.2007   The CIO has the following responsibilities:

- Develops criteria, requirements, and & process for defining projects as "Major";
- Approves selection & termination of any major IT project or one with high risk & complexity
- Approves statewide technical and data standards for IT projects.
- Designates IT projects as "major "Approves the Commonwealth Project Management Standard;
- Grants Project Initiation Approval and directs termination for Category One, Two and Three projects;
- Approves IT procurements exceeding $250,000, and approves Invitations for Bids, Requests for Proposals, and contracts related to Major IT Projects;
- Approves initiation and/or termination of any procurement over $1M and contracts & modifications and associated project, procurement and investment management policy, standards and guidelines;
- Grants Investment Business Case Approval for all IT Projects with a value that equals or exceeds $250,000.
- Shall provide all directors of agencies and departments with all such information, guidance and assistance required to ensure that agencies and departments understand and adhere to the policies, procedures and standards developed pursuant to §2.2009.
- Shall immediately notify each member of the Senate Finance Committee and House Appropriations Committee of any decision to terminate in accordance with §2.2015 any major information technology project in the budget bill. Such communication shall include the CIO's reason for such termination.

§2.2-2016.1 The CIO may also direct the modification, suspension or termination of any IT Project that has not met the performance measures established in the Project Charter, if such action is appropriate and consistent with the terms of any affected contracts. A decision regarding suspension of an IT Project at an institution of higher education will be made in consultation with the institution board of visitors.

4.3.3 Cabinet Secretaries and Agency Heads

Cabinet secretaries and Agency Heads may designate secretariat and agency enterprise technology programs in support of secretariat or agency initiatives, with the approval of the

Secretary of Administration. Secretariat or Agency enterprise technology programs and projects will be defined, funded, developed, approved, and managed utilizing guidance established within the Commonwealth Information Technology Investment Management Standard. Agency Heads also grant Project Initiation Approval to Category Four and Agency-level projects.

4.3.4 Secretariat Oversight Committees

A Secretariat Oversight Committee (SOC) provides oversight for Information Technology Projects as prescribed by this Standard. The SOC represents the business or functional owners and will have the following membership at a minimum:

- Proponent Secretary (Chair ex officio);
- Proponent Deputy Secretary (Chair);
- CIO Representative (VITA – Project Management Office Supervisor);
- Secretary of Finance Representative – (Department of Planning and Budget – DPB Analyst);
- Proponent Agency Head or designated substitute; and
- Others, as appointed by the Chair and CIO.

The SOC will validate proposed project business cases and make recommendations to the CIO on Information Technology Projects proposed for development. The committee will review Significant Change Control Requests (See Section 5.4.2.2) forwarded for CIO approval, may request an IV&V review of a project as part of that review and will make recommendations to the CIO concerning the approval of those Change Control Requests. The Committee will also review other Independent Verification and Validation (IV&V) reports submitted for projects and may recommend corrective actions. The Committee will accept escalated issues from the IAOC to consider and resolve, or forward their recommendations to the CIO for final resolution.

4.3.5 Internal Agency Oversight Committees

§2.2-2021 The IAOC is appointed by the CIO on a project by project basis, upon recommendation of the Agency, as prescribed in this Standard. The membership is specified in the Project Charter and confirmed in the Project Initiation approval memorandum. Generally, all stakeholders identified in the charter are represented on the IAOC. A Project Management Consultant from PMD will participate as a non-voting member to advise the committee on the application of this standard and on project management best practices. The IAOC will have the following membership at minimum:

- Proponent Agency Head (Chair) or designated substitute;
- Project Sponsor;
- Project Manager;
- Stakeholder representative(s) as appropriate for the project;
- VITA Customer Account Manager (CAM) (when the project requires infrastructure support through a work request) (non-voting);
- Commonwealth IT Partnership Agency Operations Manager (AOM) (non-voting) (when the project requires infrastructure support through a work request); and
- PMD (non-voting).

The IAOC provides oversight and direction to the project for which it was chartered. The IAOC will review and approve the schedule baseline and all project documentation before forwarding those documents to the CIO. In addition, the IAOC will attempt to resolve all project issues at their level of authority. Any issues that the Project Manager and/or the IAOC cannot resolve will be forwarded to the Secretariat Oversight Committee or the CIO as appropriate.

The IAOC will review and approve Nominal Change Control Requests. The Committee will review and make a recommendation on Significant Change Control Requests. (See Section 5.4.2)

Other matters that cannot be resolved by the IAOC will be escalated to the SOC.

The frequency of IAOC meetings depends on the Project Category.   The IAOC will have a prepared agenda that will address recent and expected changes to the standard project baselines – project budget, scope, schedule, and performance. Relevant questions from which an agenda can be derived include:

- Is the project on track to meet planned business goals and the associated measures of success?
- Are the costs within the planned budget?
- Is the project on schedule?
- Does the project remain within the approved scope? and
- How is the project being managed to minimize or mitigate identified risks?

The IAOC should be familiar with the project's Risk Management Plan and associated contingency plans to know how to act accordingly should critical risks become reality. Meeting minutes are essential for the project record, and will be formally approved by the committee from the previous meeting, and taken for the current meeting.

4.3.6 Project Management Division (PMD)

PMD is established in the *Code of Virginia* and serves as the Commonwealth Enterprise Program Management Office. On behalf of the CIO, PMD implements an integrated approach to the management of information technology investments.

PMD Project Management Consultants confer with agencies and assist them with the analysis and documentation of projects beginning in the Strategic Planning process. In addition, they review project documentation and prepare recommendations for the CIO as appropriate. Project Management Consultants review status reports and prepare independent analyses of the project's progress, including recommendations for the CIO's assessments. At the direction of the Joint Legislative Review and Audit Commission (JLARC) project oversight services provided by Project Management Division may be billed to the agencies receiving those services.

4.3.7 Project Sponsor

The Project Sponsor is the individual, usually part of the Agency management team, who makes the business case for the project. This individual usually has the authority and responsibility to define project goals, secure resources, establish project priorities, and resolve intra- and inter-

organizational issues and conflicts. In addition, the Project Sponsor and Project Manager work closely to ensure that project objectives are met, resources, especially functional subject matter experts are made available to the project and issues are resolved as expeditiously as possible. Project Sponsors should be prepared to dedicate a portion of their time on a weekly, if not daily basis, to attend to their project in detail. The Project Sponsor should be a member of the IAOC and may be designated by the Agency Head to chair that committee. Additional responsibilities for Project Sponsors as they relate to specific project categories are included in the discussion of those categories.

4.3.8 Program Manager

Where appointed, the Program Manager provides oversight and coordination of assigned projects; guides and supports the development and enhancement of project management capabilities within an enterprise program office or operational organization(s); ensures appropriate project management processes and procedures are in place; and enforces adherence to established standards and guidelines in the delivery of IT Projects. Not all projects are part of programs, so there may be no Program Manager in the chain of responsibility.

4.3.9 Project Manager

Every IT Project must have a designated Project Manager. The Project Manager (PM) is responsible for the management and performance of the project from planning through closeout, paying particular attention to the project's budget, schedule and scope. The PM leads and coordinates the activities of the Project Management Office (PMO), when one is established, or coordinates the support required by the project from entities within the agency, if a dedicated PMO is not established. The PM is also ultimately responsible for identifying and managing risks and their impact on the project, although a full-time Risk Manager may be appointed to assist the PM with this task. The Project Manager position for Category One, Two and Three Projects (as described below) shall be a full-time position, unless an exception is granted by the CIO.

Section 5. Executing Information Technology Projects

5.1 Overview

This section provides generic requirements for the Initiation, Detailed Planning, Execution and Control and Closeout of Information Technology Projects. Specific requirements based on Project Category follow in subsequent sections.

5.2 Project Initiation

Project Initiation begins when an agency decides to move forward with a project identified in the Agency Strategic Plan that has been granted Investment Business Case Approval by the CIO. The Project Sponsor is usually responsible for completing the activities of the Initiation Phase, but a Project Manager-designee may be identified to perform or assist with Initiation tasks. The Investment Business Case and other Investment Business Case Approval documents are stored in the Commonwealth Technology Portfolio. Information from those documents is used to populate project management documents going forward. The CPGA Select Risk/Complexity Assessment establishes the project's initial Risk/Complexity and CPGA Category that will drive Initiation Planning and the preparation of the Project Initiation Approval documents.

The objectives of the Initiation Phase are to complete the analysis of solution alternatives, to document the selected solution and the business case for pursuing that alternative, and to gain Project Initiation Approval.

5.2.1 Project Manager (PM) Qualification and Selection

Qualification and selection of a Project Manager is required *prior* to the submission of the Project Charter and supporting documents seeking Project Initiation Approval.

The Project Manager must be either an employee of the Commonwealth or a consultant employed by the Commonwealth and qualified in accordance with the Project Manager Selection and Training Standard (COV ITRM Project Manager Selection and Training Standard CPM 111-03). The level of that qualification will vary by Project Category. The PM is appointed by the Project Sponsor, and approved by the Chief Information Officer as part of Project Initiation Approval.

5.2.2 Business Case and Alternative Analysis

The Agency will identify and analyze potential technology solutions that can satisfy the business problem presented in the Investment Business Case. A minimum of three alternative solutions, one of which should be a "status quo" or "do nothing" alternative, should be fully described and analyzed. In addition, the agency must demonstrate a clear understanding of the processes, costs, strengths and weakness of its current business process.

This analysis must include a detailed review of each proposed solution, including deliverables, impacts on business processes, technical feasibility and the maturity of the proposed technologies; identification, at least at a high level, of potential risks and a detailed description of the potential benefits, both "tangible" and "intangible," that are expected to accrue. The Commonwealth Technology Portfolio provides templates for the documentation of this analysis.

The Commonwealth Project Management Guideline (ITRM Guideline CPM 110-01), provides guidance on project analysis and solution selection.

5.2.3 Cost Benefit Analysis

In addition to a narrative identification and analysis of alternatives, a detailed economic feasibility study or Cost-Benefit Analysis (CBA) is required to assist in solution selection. The Commonwealth Technology Portfolio includes the CBA worksheet. The Commonwealth Project Management Guideline (ITRM Guideline CPM 110-01) also provides detailed guidance on the performance of a CBA.

The CBA provides the information needed to make an informed decision about the cost, benefits and return on investment, or value of potential solutions. The CBA defines project objectives and alternative solutions in terms of costs and benefits. It also documents important assumptions used to derive the project costs and benefits. The final product is a consistent document that provides an understanding of the economic feasibility of the solutions being considered, the expected Return on Investment (ROI) and anticipated payback period (if any). The completed CBA is a major supporting document for Project Initiation Approval consideration.

5.2.4 Project Charter Preparation

The Project Charter formally communicates the existence of the project, serves as the basis for detailed project planning, appoints the Project Manager, and authorizes the expenditure of resources.   The Project Charter also establishes the initial Budget, Schedule and Scope baselines and establishes the membership of the Internal Agency oversight Committee (IAOC) (Code of Virginia, § 2.2-2021 – Project oversight committees). Minimum membership requirements for the IAOC are defined in *Section 4.3.5 Internal Agency Oversight Committees.* A detailed project organization chart, depicting both the operational and oversight structures supporting the project, is a required attachment, uploaded to the Commonwealth Technology Portfolio repository.

In order to support the requirements of the Code of Virginia §30-85, the Project Charter must reflect an estimate of Operations and Maintenance Costs for a minimum of six years.

5.2.5 Procurement Plan

The Project Manager will develop a plan listing all of the procurements necessary to execute the selected project.

5.2.6 Agency Approval and Submission to PMD

When the Project Charter and other documents are complete, the Project Manager submits them to the Project Sponsor and Agency Head, in turn, for approval. The Project Manager loads electronic copies of the signed approvals into the Commonwealth Technology Portfolio and notifies PMD of that approval. Agency Head approval constitutes Project Initiation Approval for Category Four Projects. For the remaining Project Categories, additional review and approvals are required.

5.2.7 Proponent Secretariat Approval

PMD will perform an initial review of the documents and provide feedback to the Agency. PMD will also coordinate a Secretariat Oversight Committee (SOC) meeting to review the project documentation. The SOC will recommend approval or rejection of the project to the CIO, and may also recommend conditions or contingencies for approval. If the SOC recommends approval, the Proponent Secretary or Deputy Secretary will sign the Project Charter. PMD will note the approval and load an electronic copy of the signed charter into the Commonwealth Technology Portfolio. If the SOC recommends disapproval, it will return the project to the Agency, listing its issues/concerns and directing the remediation of the Project Initiation documents.

5.2.8 PMD Review and Recommendation

The final review by PMD will include an analysis of the Project Charter using balanced scorecard criteria approved by the CIO. PMD uses a modified Delphi methodology to validate and quantify the subjective analysis of independent reviewers. The modified approach requires independent review by at least two Project Management Consultants. The results are consolidated and reviewed by the PMD Project Management Office Supervisor.

PMD will recommend approval or rejection of the project to the CIO as well as any conditions or contingencies that will be applied to the project and communicated to the agency in the Project Initiation Approval memorandum. Agencies should anticipate a minimum of 30 business days from the date of formal project submission to PMD for formal approval.

5.2.9 CIO Review and Approval or Recommendation

The CIO reviews the Project Charter, balanced scorecard, PMD Recommendation and supporting documents. The CIO may grant Project Initiation Approval to Category One, Two and Three projects. If the CIO disapproves the project, it will be returned to the project sponsor for resolution of discrepancies, cancellation or resubmission to CIO for approval.

5.2.10 Secretary of *Administration* ~~Technology~~ Review and Approval

The Secretary of *Administration* ~~Technology~~ reviews the Project Charter, balanced scorecard, PMD Recommendation and other supporting documents for Project Initiation Approval of Enterprise level projects. The Secretary may grant approval by signing the Project Initiation Approval letter, return the recommendation to the CIO for further review or remediation, or reject the project. If the Secretary disapproves the project, it will be returned to the project sponsor for resolution of discrepancies, cancellation or resubmission for ~~SoTech~~ approval.

5.2.11 Transition to Detailed Planning

Project Initiation Approval expires if the project has not started (i.e., started the procurement process or made progress toward the development of its Detailed Plans) within 90 calendar days after the project start date identified in the Project Initiation Approval memorandum. The PMD Project Management Consultant assigned to the project will determine if the project has been started by the expiration date. If Project Initiation Approval expires, the Project Manager must update the appropriate project documentation and coordinate with the assigned Project Management Consultant to repeat the CPGA Project Initiation Approval Risk/Complexity Analysis (see section 5.2.5) and all subsequent approval steps.

Final approval will be noted in the Commonwealth Technology Portfolio by PMD and electronic copies of signed documents will be uploaded to the repository. An optional Project Initiation Transition Checklist, (which is intended to assist Project Managers identify and complete the Project Initiation tasks), is provided for the PM's use in the Commonwealth Technology Portfolio.

Project Initiation Approval

Project Initiation Process

Start → IBC Approval Received? → Cost Benefit Analysis Created in CTP (CBA) → Business Case Alternatives Analysis Completed in CTP (BCAA) → Project Manager Qualification Created in CTP → Project Charter Created in CTP → Project Organizational Chart uploaded to CTP → Risk & Complexity Assessment Completed Jointly → Category 4?

Category 4? — No → SOC Approval Process / PMD Balance Scorecard and Decision Brief → CIO Approval or Disapproval? → Finish

Category 4? — Yes → IAOC Approval → Complete Project Initiation Transition Checklist in CTP

Reviews, approvals, and signoff are an important part of the Process and are a factor to be considered when walking through the Commonwealths Project Management Standard and associated processes.

Timing associated with each step in the process and sufficient lead time must be taken into consideration for all steps to occure.

5.3 Detailed Planning

Once Project Initiation Approval has been granted, the Detailed Planning Phase begins. In this phase, in-depth planning is completed and planning documents are developed and approved. The Project Manager may not proceed with project execution until the Detailed Project Plan has been approved by PMD (see Section 9.3.2 for the exception related to Category Four projects.)

Project Planning is the process of defining and organizing activities and resources to deliver a unique product or service. The Project Plan communicates project activities in terms of:

- what tasks will be performed;
- who will perform the tasks;
- how long it will take to perform the tasks
- when the tasks will be performed;
- what resources will be applied to accomplish the tasks; and
- How the tasks will be sequenced.

The Commonwealth Technology Portfolio includes online forms for the Planning Phase, and shall be the repository for all Planning Phase documents. Much of the information required for the completion of the Detailed Plan is carried forward from the Initiation Phase by the Commonwealth Technology Portfolio.

The Detailed Project Plan must be approved by the IAOC, the Project Sponsor, and the Agency Head. PMD reviews and approves the Project Plans on behalf of the CIO if the project baselines are unchanged or within 10% of the baselines established in the Project Charter. If the Detailed Project Plan breaches this 10% threshold for schedule, budget or scope, it must be accompanied by a Change Control Request, which must be reviewed by the Secretariat Oversight Committee and approved by CIO. Detailed Project Plans are revised as needed to reflect any changes directed by the Project Sponsor, Agency Head or the IAOC.

A fundamental component of Project Planning is the development of metrics to gauge and evaluate project progress. The primary tool used in performance measurement is Earned Value Analysis (EVA). The application of EVA is documented in the monthly Project Status Report in Commonwealth Technology Portfolio.

5.3.1 Planning Activities

The following matrix lists the planning activities that all Commonwealth-level information technology projects shall execute. Preparation of the planning documents depends on the project category. If an individual document is optional for a given project category, the Project Manager is still expected to conduct the planning activity and summarize the results in the Project Plan Summary. Except as noted, forms for these plans reside in the Commonwealth Technology Portfolio.

Planning Activity	Document
Define and describe the project's Deliverables. (Describe what the user will receive as the end product(s) of the project. Deliverables may include (but are not limited to hardware, packaged software, custom developed software, documents and training.)	Project Scope and Business Objectives Worksheet
Identify the tasks required to produce each Deliverable. Decompose those tasks into subtasks until they can be estimated, observed and evaluated.	Work Breakdown Structure*

Planning Activity	Document
Using the task list developed above, assign responsibility for the performance of the work	Organizational Breakdown Structure*
Using the task list developed above, estimate the amount of time required for the performance of each task and sequence them so that the output of one task or set of tasks is available when it is required by a follow-on task or set of tasks	Activity Definition and Sequencing Plan
Using the documents produced above, develop a detailed breakdown of resources (other than funds) required to produce the deliverables. Resources include, but may not be limited to personnel, software tools, equipment, etc.	Resource Plan
Applying a calendar to the sequenced list of tasks and resources and resolving conflicts in the assignment of those resources to project tasks yields a Project Schedule	Project Schedule (Also, submit a Microsoft Project plan to document the full schedule)
Plan for the identification, evaluation, prioritization, management and response to risks that may impact the project. Identify the roles and responsibilities of the project staff with regard to risk. Plan for periodic review, update and/or removal of risks.	Risk Management Plan
Identify the cost of avoiding, responding to and/or mitigating project risks.	Risk Management Risk Cost Biennium Costs Form(s)
Identify the project information needs of stakeholders. Identify and plan for project communications to respond to those needs.	Communications Plan
Identify quality requirements related to each project deliverable and the actions that will be taken to ensure that those requirements are satisfied. Plan for external reviews of the project's performance.	Quality Management and IV&V Plan
Define the processes and responsibilities related to changes to the project's cost, scope and schedule baselines. Define the processes and responsibilities related to change to the project's deliverables.	Change and Configuration Management Plan
Assess the impact of delivering the project's products to the user organization and individual users. Assess the readiness of the user organization and individual users to accept those changes. Identify, describe and plan for the actions necessary to facilitate those changes and reduce resistance to change.	Organizational Change Management Plan*

Planning Activity	Document
Using the Project Business Objectives that were defined at Project Initiation, define quantifiable performance goals, the methodology that will be used to determine whether those goals have been achieved, a schedule for testing the product's performance against those goals, the responsibility for conducting the tests and the manner in which the results will be reported.	Performance Plan
Develop a Quarterly Spending Plan for the project associated with each major budget category. Identify the source(s) of funds that will be used to satisfy the quarterly project spending requirements.	Project Budget
Summarize the planning that has occurred and the targets and goals of the project	Project Plan Summary

* Form not included in the Commonwealth Technology Portfolio. This document should be prepared using office productivity software and uploaded to the repository in the CTP.

5.3.2 CPGA Detailed Plan Risk/Complexity Assessment

When the Project Manager has completed the draft Detailed Project Plan (prior to submission to the Internal Agency Oversight Committee or agency management) he/she will meet with the assigned PMD Project Management Consultant to complete the CPGA Detailed Plan Risk/Complexity Assessment. Completion of this assessment will confirm or reset the Risk/Complexity level for the project, determine the approval path for the Detailed Project Plan and the required oversight activities and documentation for the Execution and Control Phase.

5.3.3 Agency Level Plan Review

The Internal Agency Oversight Committee (Category One, Two and Three projects) must review the detailed plan, paying particular attention to project risks, the project schedule and budget. The committee makes a recommendation for approval to the Project Sponsor and Agency Head. Their approvals are noted on the Project Plan form, Approvals tab, in the Commonwealth Technology Portfolio.

For Category Four Projects, the Project Manager forwards the Detailed Project Plan to the Project Sponsor, who approves and forwards it to the Agency Head for approval. Agency Head approval constitutes detailed Project Plan approval for Category Four Projects. The Project Manager should notify PMD that the plan has been approved, and then may proceed to the Execution and Control phase of the project.

5.3.4 Detailed Project Plan Review and Approval by PMD

When the Detailed Project Plan for a Category One, Two or Three project has been formally submitted by the agency, the assigned PMD Project Management Consultant will conduct thorough review of the plan to ensure that it provides a complete roadmap for the completion of the project. Execution of the project cannot proceed until the review of the Detailed Plan is complete and the plan has been approved. PMD approves the Detailed Project Plan on behalf of the CIO.

5.3.5 Transition to Execution

An optional Project Planning Transition Checklist is provided for the PM's use in the Commonwealth Technology Portfolio.

Detailed Planning Process – Category 1, 2, & 3 Projects

Agency Initiation Process

Start → Baselines within 10% of Project Charter?

- Yes → Project Scope & Business Objectives Worksheet Completed in CTP → Work Breakdown Structure* uploaded in CTP
- No → SOC Approval Process → Project Scope & Business Objectives Worksheet Completed in CTP

Organizational Breakdown Structure* uploaded in CTP → Activity Definition & Sequence Worksheet* uploaded to CTP → Resource Plan created in CTP → Project Schedule (MS Project file) uploaded in CTP → Risk Management Plan created in CTP

Risk Management Risk Cost Biennium Costs Form(s) → Communications Plan created in CTP → Quality Management and IV&V Plan → Change & Configuration Plan created in CTP → Organization Change Management Plan* uploaded to CTP

Performance Plan uploaded to CTP → Budget Plan created in CTP → Project Plan Summary created in CTP

Agency & PMD Review Process

CPGA Risk & Complexity Assessment completed jointly in CTP → Agency Level Plan Review / Approval → PMD Review → PMD Detailed Planning Approval → Optional: PM may create Project Planning Transition Checklist in CTP

PMD Detailed Planning Approval → PMD creates Oversight Plan in CTP → Finish

* Form not included in the Commonwealth Technology Portfolio. This document should be prepared using office productivity software and uploaded to the repository in the CTP.

Reviews, approvals, and signoff are an important part of the Process and are a factor to be considered when walking through the Commonwealths Project Management Standard and associated processes.

Timing associated with each step in the process and sufficient lead time must be taken into consideration for all steps to occur.

5.4 Execution and Control

Approval of the Detailed Project Plan establishes the project baselines for the Execution and Control Phase and signals that the Project Manager may proceed to execute the project.

The project manager directs the execution of the project based on the approved plan, paying special attention to risk management, the project schedule and execution of the project budget.

Earned Value Analysis (EVA) is the preferred method of performance measurement, or control, and is employed during the Execution and Control Phase of the project lifecycle. EVA integrates project budget, scope, and schedule measures to assess project performance. Results from an EVA may indicate potential deviation from the Project Plan baseline. EVA processes are incorporated into the project through performance planning.

Reviews, approvals, and signoff are an important part of the Process and are a factor to be considered when walking through the Commonwealths Project Management Standard and associated processes.

Timing associated with each step in the process and sufficient lead time must be taken into consideration for all steps to occur.
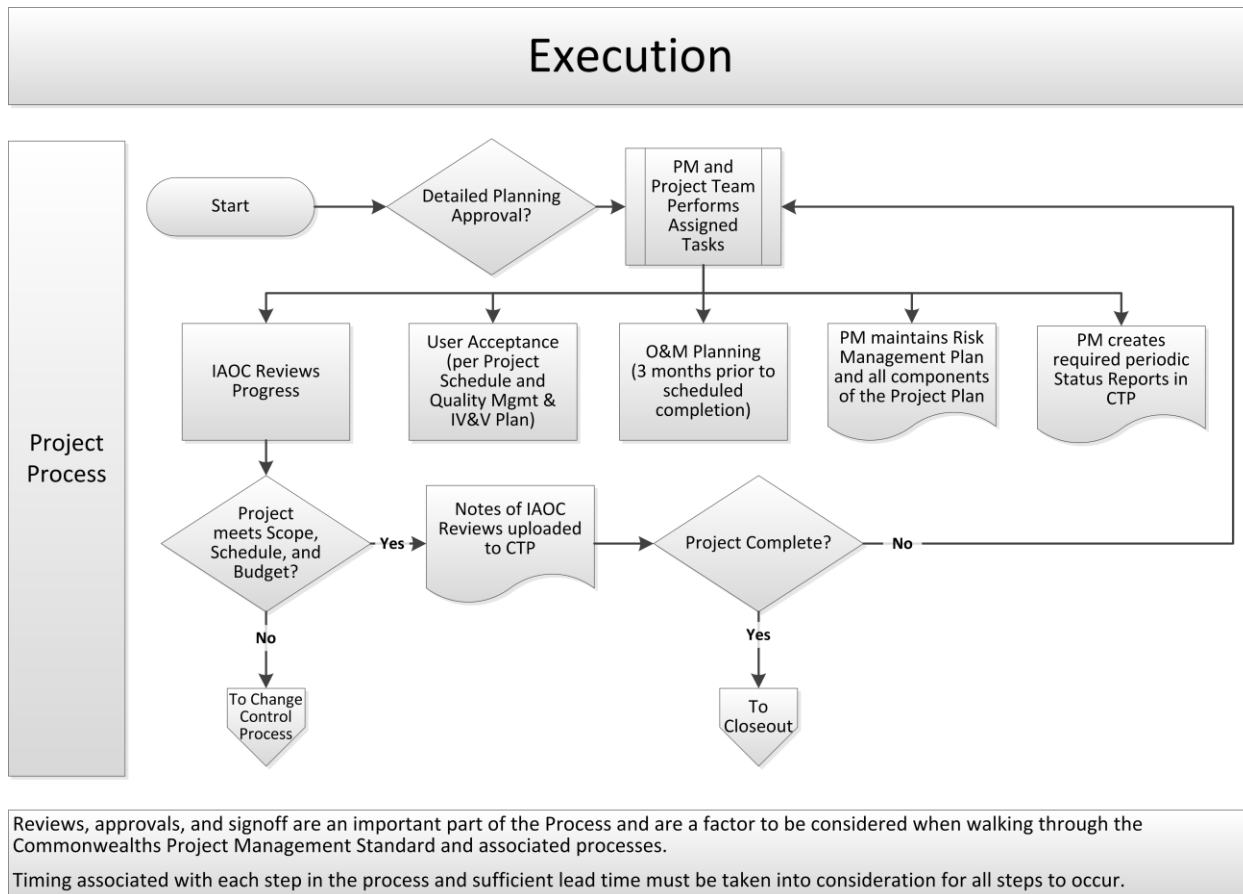
5.4.1 Risk Management

The Detailed Project Plan established the process and procedures for the identification, analysis and management of risks, and established the initial list of risks facing the project. During Execution and Control, the Risk Manager (or PM if a separate Risk Manager has not been appointed) establishes and monitors the Risk/Issues Log, monitors the identified risks and

advises the Project Manager on risk incidence and response. The Risk Manager also surveys the project for new risks; assesses and quantifies newly identified risks as provided in the Risk Management Plan; develops appropriate contingency plans; and removes or downgrades risks whose window of occurrence has passed. The Risk Manager collaborates with the Project Manager to ensure that the Risk Management section of the Project Status Report is updated and presents a Risk Update to each meeting of the Internal Agency Oversight Committee. Risk Manager duties could be a collateral appointment for a member of the project team or could be a separate, full-time assignment.

5.4.2 Change Control

The Commonwealth of Virginia uses a Managed Baseline approach to executing a project's schedule, budget and scope (deliverables). The initial baseline is established at Project Initiation Approval, using the schedule, budget and scope baselines documented in the Project Charter.

Those baselines may be adjusted, (increased or decreased) up to 10% during the Detailed Planning phase and the baselines reestablished in the Detailed Project Plan that is reviewed and approved by the IAOC, Project Sponsor and CIO. If a change greater than 10% of the baselines established in the Project Charter is required, a Change Control Request must be submitted and approved using the process for the review and approval of Significant Change Control Requests, described below.

Changes (increase or decrease) to the project's baselines that are required during the Execution and Control phase of the project's lifecycle are categorized as either Nominal Change Control Requests or Significant Change Control Requests. These requests are defined and will be processed and approved as described below:

Project Change Control Request

Agency Project CCR Initiation Process

Start → IBC Approval Received? → Complete Risk & Complexity Assessment Jointly → Update Project Schedule → Update Budget Plan

Complete Change Control Request → IAOC Review and Approval → Project Sponsor Approval → Agency Head Approval → Category 1, 2, or 3 Change ≤ 10% or Category 4 ≤ 20%

Category 1, 2, or 3 Change ≤ 10% or Category 4 ≤ 20% — Yes / No

Review and Approval Process

SOC Evaluation → SOC Requests Event Driven IV&V? — Yes → Event Driven IV&V Conducted

SOC Requests Event Driven IV&V? — No → SOC Recommendation

Event Driven IV&V Conducted → IV&V Report Provided to SOC → SOC Recommendation

PMD Evaluation and Recommendation → CIO Evaluation → CIO Requests Event Driven IV&V? — Yes → Event Driven IV&V Conducted

CIO Requests Event Driven IV&V? — No → CIO Recommendation

Event Driven IV&V Conducted → IV&V Report Provided to CIO → CIO Recommendation

Save a copy of CCR to CTP → Copy Scope Change and Scope Change Impact from CCR to Project Closeout Report → PMD Re-baselines Schedule, Budget, and Scope for Project Status reporting in CTP → Finish

Reviews, approvals, and signoff are an important part of the Process and are a factor to be considered when walking through the Commonwealths Project Management Standard and associated processes.

Timing associated with each step in the process and sufficient lead time must be taken into consideration for all steps to occure.

5.4.2.1 Nominal Change Control Requests

Nominal Change Control Requests are those that will modify a project's cost, schedule or scope (deliverables) baseline by 10% or less (20% or less for Category Four projects). However, for projects of 24 months or less duration (current baseline schedule), a schedule baseline change of 4 months or less will also be considered a Nominal Baseline Change Control Request, so long as any associated project budget increase is less than 10%.

Nominal Change Control Requests will be documented in the CTP and approved by the IAOC, Project Sponsor and Agency Head. These changes should be accompanied by appropriate changes to the Project Schedule, Budget Plan and Performance Plan documents in the CTP. Once those approvals are noted in the CTP, the PMD Project Management Consultant will adjust the project baselines in the CTP.

5.4.2.2 Significant Change Control Requests

Significant Change Control Requests are those that will modify a project's cost, schedule or scope (deliverables) baseline by more than 10% (more than 20% for Category Four projects). Significant Change Control Requests will be documented in the CTP. These changes should be accompanied by appropriate changes to the Project Schedule, Budget Plan and Performance Plan documents in the CTP.

When the Project Manager has completed the draft Change Control Request for these changes (prior to submission to the Internal Agency Oversight Committee or agency management) he/she will meet with the assigned PMD Project Management Consultant to complete the CPGA Event-Driven Risk/Complexity Assessment. Completion of this assessment will confirm or reset the Risk/Complexity level for the project, determine the approval path for the Change Control Request and the required oversight activities and documentation for the remainder of the Execution Phase. When the PM finalizes the Change Control Request, it is submitted to the IAOC (or, in the case of Category Four project, the Agency Head).

The Internal Agency Oversight Committee must review the Change Control Request and make a recommendation for approval to the Project Sponsor and Agency Head. Their approvals are noted on the Change Control Request, Approvals tab, in the Commonwealth Technology Portfolio.

For Category One, Two and Three Projects, the Project Manager will notify PMD when agency approval has been accomplished. PMD will perform an initial review of the documents and provide feedback to the agency. PMD will also coordinate a SOC meeting to review the request. The SOC will recommend approval or rejection of the request to the CIO, and may also recommend conditions or contingencies for approval. If the SOC recommends approval, the Proponent Secretary or Deputy Secretary will sign the request and PMD will note the approval and load an electronic copy of the signed document into the Commonwealth Technology Portfolio. If the SOC recommends disapproval, the PMD Project Management Consultant will work with the committee to satisfy its concerns. Failing that, the consultant will note the reasons for the SOC's disapproval recommendation and continue processing the request.

The SOC or the CIO may direct the Project Manager to initiate an IV&V review of the project and use the results of that review to assist it in its deliberations regarding the Change Control

Request. If a Change Control Request-related IV&V review is directed, processing of the request will be held in abeyance until the review is completed and the report is formally submitted.

The PMD Project Management Consultant will review and update the Balanced Scorecard in light of the Change Control Request and prepare a recommendation to the CIO.

The CIO reviews the Change Control Request, PMD's Recommendation and other supporting documents. If the CIO approves the request, he/she will sign the Change Memorandum. If the CIO disapproves the request, he will provide direction to PMD, which will work with the Project Manager to remediate the request and resubmit it for CIO approval. The CIO may also direct the initiation of an IV&V review of the project and proposed change.

5.4.3 User Acceptance

User Acceptance criteria are established in during Detailed Planning.   The Project Manager and Project Sponsor must document acceptance of each deliverable. They will also identify any issues that remain outstanding, and the agreed upon plan for resolution of the outstanding issues. The Project Closeout form in CTP may serve as documentation of user acceptance and testing of agreed upon deliverable.
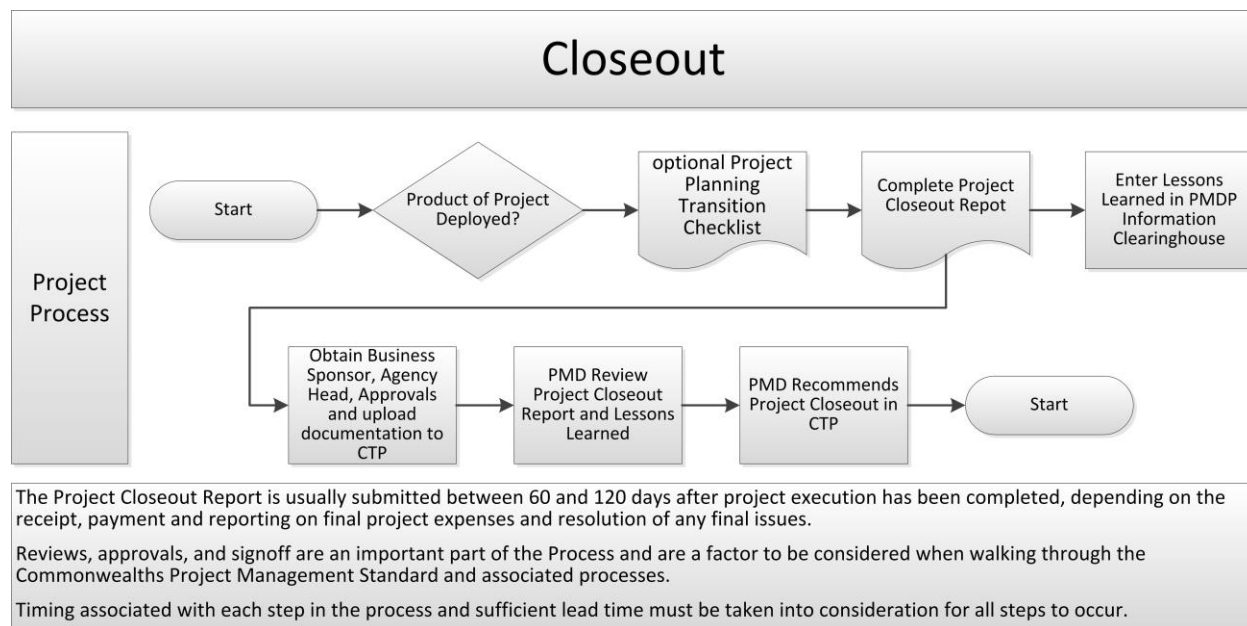
5.4.4 Operations and Maintenance (O&M) Planning

Not later than three (3) months prior to the scheduled completion of the project's Execution and Control phase, the Project Manager shall complete and document planning for the system's operation and maintenance, using the form provided in the Commonwealth Technology Portfolio. The Project Manager shall coordinate with the agency financial, information technology and operational managers to ensure that they are prepared to support the system from a budgetary, staffing, technology and operational perspective. The Project Manager may be required to assist with the preparation of a Budget Decision Package or Strategic Planning documents to describe funding, staffing or other resources to support the system. The Project Manager shall review this plan with the Internal Agency Oversight Committee and Project Sponsor, and submit a final copy of this plan to PMD for review/comment.

5.4.5 Transition to Closeout

Project Execution continues until all deliverables have been accepted, the agency cancels the project or the CIO orders the project terminated. An optional Project Execution and Control Transition Checklist is provided for the PM's use in the Commonwealth Technology Portfolio.

5.5 Project Closeout

Closeout is the last phase in the Commonwealth project lifecycle. The Closeout Phase begins when the user has accepted all of the project deliverables, (establishing operational products or services), and the project sponsor concludes that the project has satisfied the project purpose described in the Project Charter. The major focus of the Closeout Phase is administrative closure and documentation of lessons learned or best practices and completing the transition to operations and maintenance.

Closeout

The Project Closeout Report is usually submitted between 60 and 120 days after project execution has been completed, depending on the receipt, payment and reporting on final project expenses and resolution of any final issues.

Reviews, approvals, and signoff are an important part of the Process and are a factor to be considered when walking through the Commonwealths Project Management Standard and associated processes.

Timing associated with each step in the process and sufficient lead time must be taken into consideration for all steps to occur.

5.5.1 Project Closeout Report

Using the Commonwealth Technology Portfolio, the Project Manager must complete a Project Closeout Report. The Project Closeout Report is the Project Manager's final report of the project's accomplishments against its project budget, scope, schedule, and performance baselines. It also details the disposition of the project's documentation. The Project Closeout Report is usually submitted between 60 and 120 days after project execution has been completed, depending on the receipt, payment and reporting on final project expenses and resolution of any final issues. The Project Closeout Report must be approved by the IAOC, Project Sponsor, and Agency Head before submission to PMD.

5.5.2 Lessons Learned and Best Practices

Using the Commonwealth Technology Portfolio, the Project Manager must report lessons learned and best practices to the Project Manager Development Program (PMDP) Information Clearinghouse. PMD will review and approve additions to the PMDP Information Clearinghouse before publishing them on the PMD website.

5.6 Governance and Oversight of Information Technology Projects

5.6.1 Project Status Reporting

 The frequency of project status reporting for Commonwealth technology projects depends on the Project Category and is addressed in the Project Category sections that follow. Status reports will be submitted using the Commonwealth Technology Portfolio. Project managers will submit an initial report for the first full month following the date that Project Initiation Approval was

granted; e.g., a project granted Project Initiation Approval on April 15th would submit its first status report in June for the months of April and May.

The Project Status Report must provide a detailed and descriptive report on the project's accomplishments during the reporting period, and those anticipated to complete in the next reporting period. The report should specifically address milestones and other key tasks that have been accomplished in the current reporting period and those that have been delayed, including the reason for the delay and impact on the overall schedule. In addition, a detailed review of the following topics should also be presented:

- Key Status Indicators;
- Project Risk Status including new risks, ;
- Measures of Success;
- Planned versus Actual Expenses, including an explanation of any variance and;
- Project Baselines and;
- IT Partnership infrastructure Requests for Service

Status reporting will continue until the Project Closeout Report is submitted on the following schedule:

- The Project Manager will complete the Project Status Report by the fifth business day of the month following the end of the reporting period.
- The Project Sponsor will review and approve the Project Status Report, and provide a Project Status Assessment (on-track, warning or problem) by the eighth business day of that month. Beyond this date, the Project Manager should not attempt any further edits of that month's report
- The Proponent Secretariat will review and approve the Project Status Report, and provide a Project Status Assessment (on-track, warning or problem) by the tenth business day of that month.
- On the 11th business day of the month, the reports are available to the Project Management Division and CIO.

Project Status Reports Due-Dates	Month end of reporting period
5th of the Month	PM
8th of the Month	Project Sponsor (on-track, warning or problem)
10th of the Month	Proponent Secretariat (on-track, warning or problem)
11th of the Month	PMD

Adjustments to this schedule may be necessary to accommodate reporting for the prior month. The PMD Project Management Consultant will advise Project Managers and Project Sponsors accordingly.

The PMD Project Management Consultant will return any Project Status Report that does not address the key topics identified above in sufficient detail to the Project Manager for remediation.

5.6.2 Project Oversight Plan

Within 30 days of the approval of the Detailed Project Plan, the PMD Project Management Consultant will develop an Oversight Plan that details how the project will be monitored for progress, tracked on issues, and evaluated for deliverables. The Oversight Plan is shared with the Project Sponsor, Project Manager, and IAOC to accurately communicate the expectations and requirements related to the oversight of their project.

5.6.3 Independent Verification and Validation (IV&V)

IV&V is a review of the project plans and other project artifacts by a disinterested third party to confirm that the project is "doing the right thing," and doing it in the "right way." Periodic IV&V reviews are required of all Category One, Two and Three Projects. The Commonwealth's approach to IV&V is primarily event-driven with a calendar-based backup, meaning that IV&V reviews should be scheduled to coincide with major project milestones, but if no milestone event occurs over a specified time period, the calendar will trigger a review. See the sections of this standard related to individual project categories for specific requirements. Other considerations in planning IV&V reviews include the Project Category, specific approach that the project is taking, (e.g., development of a custom software application or configuration and deployment of a Commercial Off-the-Shelf (COTS) application), and the specific System Development Life Cycle (SDLC) model being used. For example, a Category One project that is developing custom software using a 'waterfall' system development life cycle, should plan for IV&V in conjunction with the following life cycle events, and should not proceed to the next phase of the life cycle without receiving at least the draft report from that review:

- Completion of Requirements Definition, prior to the commencement of design.
- Completion of Detailed Design, prior to the commencement of software development.
- Completion of Software Development, prior to the commencement of user acceptance testing.

The agency will propose an initial schedule for IV&V as part of the Major Milestones listed in the Project Charter during the Project Initiation process. Unless a review-triggering milestone event is scheduled to occur in the interim, IV&V reviews should be scheduled to occur annually, beginning six months after the approval of the Detailed Project Schedule. The IV&V schedule will be refined in the Detailed Planning Phase.

The PMD Project Management Consultant may adjust the timing of IV&V Reviews in order to serve the best interests of the Commonwealth, the agency and the project. See Section 12 for additional IV&V Requirements.

5.7 Post-Implementation Review

(While the Post-Implementation Review (PIR) is an ITIM process because it occurs after the project is terminated, it will be addressed here until the next revision of the ITIM Standard is completed.)

Every completed Commonwealth-level project will undergo a PIR six to twelve months after Project Closeout. The Project Sponsor will convene the PIR and include the project stakeholders identified in the Project Charter and Proposal and a representative from PMD. The PIR evaluates whether the products or services are delivering the expected results and is focused, therefore on validating the project CBA and return on investment analysis projected in the Project Charter.

From an ITIM perspective, the PIR should also be used to validate the product's or service's performance criteria and data collection, and establish the "control limits" for the selected criteria. The PIR results will be documented in memorandum form and saved in the CTP.

Section 6. Category One Information Technology Projects

6.1 Overview

This section provides specific requirements for the Initiation, Detailed Planning, Execution and Control and Closeout for Category One Information Technology Projects. In addition, detailed Governance and Oversight requirements are also provided.

6.2 Project Initiation

6.2.1 Project Manager Qualification and Selection

Project Managers must be qualified to manage Category One Information Technology Projects, in accordance with the Project Manager Selection and Training Standard (COV ITRM Standard *CPM 111-03* GOV2003-023).

6.2.2 Project Initiation Approval Authority

The Project Initiation Approval Authority for Category One Projects is the Chief Information Officer.

6.3 Detailed Planning

6.3.1 Planning Activities

The following matrix lists the planning activities and planning documents required for Category One Projects. Except as noted, forms for these plans reside in the Commonwealth Technology Portfolio.

Planning Activity	Document
Define and describe the project's Deliverables. (Describe what the user will receive as the end product(s) of the project. Deliverables may include (but are not limited to hardware, packaged software, custom developed software, documents and training.)	Project Scope and Business Objectives Worksheet
Identify the tasks required to produce each Deliverable. Decompose those tasks into subtasks until they can be estimated, observed and evaluated.	Work Breakdown Structure*
Using the task list developed above, assign responsibility for the performance of the work	Organizational Breakdown Structure*
Using the task list developed above, estimate the amount of time required for the performance of each task and sequence them so that the output of one task or set of tasks is available when it is required by a follow-on task or set of tasks	Activity Definition and Sequencing Plan

Planning Activity	Document
Using the documents produced above, develop a detailed breakdown of resources (other than funds) required to produce the deliverables. Resources include, but may not be limited to personnel, software tools, equipment, etc.	Resource Plan
Applying a calendar to the sequenced list of tasks and resources and resolving conflicts in the assignment of those resources to project tasks yields a Project Schedule	Project Schedule (Use Microsoft Project to document the full plan)
Plan for the identification, evaluation, prioritization, management and response to risks that may impact the project. Identify the roles and responsibilities of the project staff with regard to risk. Plan for periodic review, update and/or removal of risks.	Risk Management Plan
Identify the cost of avoiding, responding to and/or mitigating project risks.	Risk Management Risk Cost Biennium Costs Form(s)
Identify the project information needs of stakeholders. Identify and plan for project communications to respond to those needs.	Communications Plan
Identify quality requirements related to each project deliverable and the actions that will be taken to ensure that those requirements are satisfied. Plan for external reviews of the project's performance.	Quality Management and IV&V Plan
Define the processes and responsibilities related to changes to the project's cost, scope and schedule baselines. Define the processes and responsibilities related to change to the project's deliverables.	Change and Configuration Management Plan
Assess the impact of delivering the project's products to the user organization and individual users. Assess the readiness of the user organization and individual users to accept those changes. Identify, describe and plan for the actions necessary to facilitate those changes and reduce resistance to change.	Organizational Change Management Plan*
Using the Project Business Objectives that were defined at Project Initiation, define quantifiable performance goals, the methodology that will be used to determine whether those goals have been achieved, a schedule for testing the product's performance against those goals, the responsibility for conducting the tests and the manner in which the results will be reported.	Performance Plan
Develop a Quarterly Spending Plan for the project associated with each major budget category. Identify the source(s) of funds that will be used to satisfy the quarterly project spending requirements.	Project Budget
Summarize the planning that has occurred and the targets and goals of the project	Project Plan Summary

* Form not included in the Commonwealth Technology Portfolio.

6.4 Risk Management

The appointment of a Risk Manager (other than the Project Manager), as either a full-time or collateral duty, is strongly recommended for Category One Projects.

6.5 Governance and Oversight of Category One Projects

6.5.1 Status Reporting

Category One projects will submit a monthly Project Status Report using the format provided in the Commonwealth Technology Portfolio.

6.5.2 Internal Agency Oversight Committee (IAOC)

The establishment, roles and responsibilities of the IAOC are addressed in Section 4.2.5.

For Category One Projects, the IAOC will meet monthly. At a minimum, under special circumstances, when enough voting members will not be in attendance at a meeting, PM can send project documents to IAOC members for review and approval.

6.5.3 Independent Verification and Validation

The initial IV&V review for Category One projects will be scheduled six months after the approval of the Detailed Project Plan. Unless a project event that triggers an IV&V review occurs in the interim, an IV&V review will be scheduled annually thereafter. CIO may request an IV&V review at any time.

An IV&V review will be scheduled to coincide with the completion of each project phase, depending on the project approach and system development life cycle being used. The project schedule should allow for completion of the review and submission of the report, before progressing to the next project phase.

See Section 12 of this standard for additional information and requirements related to IV&V.

Section 7. Category Two Information Technology Projects

7.1 Overview

This section provides specific requirements for the Initiation, Detailed Planning, Execution and Control and Closeout of Category Two Information Technology Projects. In addition, detailed Governance and Oversight requirements are also provided.

7.2 Project Initiation

7.2.1 Project Manager Qualification and Selection

Project Managers must be qualified to manage Category Two Information Technology Projects, in accordance with the Project Manager Selection and Training Standard (COVITRM Standard CPM 111-03 GOV2003-023).

7.2.2 Project Initiation Approval Authority

The Project Initiation Approval Authority for Category Two Projects is the Chief Information Officer of the Commonwealth.

7.3 Detailed Planning

7.3.1 Planning Activities

The following matrix lists the planning activities and planning documents required for Category Two Projects. Except as noted, forms for these plans reside in the Commonwealth Technology Portfolio.

Planning Activity	Document
Define and describe the project's Deliverables. (Describe what the user will receive as the end product(s) of the project. Deliverables may include (but are not limited to hardware, packaged software, custom developed software, documents and training.)	Project Scope and Business Objectives Worksheet
Identify the tasks required to produce each Deliverable. Decompose those tasks into subtasks until they can be estimated, observed and evaluated.	Work Breakdown Structure*
Using the task list developed above, assign responsibility for the performance of the work	Organizational Breakdown Structure
Using the task list developed above, estimate the amount of time required for the performance of each task and sequence them so that the output of one task or set of tasks is available when it is required by a follow-on task or set of tasks	Optional. Activity Definition and Sequencing Plan

Planning Activity	Document
Using the documents produced above, develop a detailed breakdown of resources (other than funds) required to produce the deliverables. Resources include, but may not be limited to personnel, software tools, equipment, etc.	Resource Plan
Applying a calendar to the sequenced list of tasks and resources and resolving conflicts in the assignment of those resources to project tasks yields a Project Schedule	Project Schedule (Also, submit a Microsoft Project plan to document the full schedule)
Plan for the identification, evaluation, prioritization, management and response to risks that may impact the project. Identify the roles and responsibilities of the project staff with regard to risk. Plan for periodic review, update and/or removal of risks.	Risk Management Plan
Identify the cost of avoiding, responding to and/or mitigating project risks.	Risk Management Risk Cost Biennium Costs Form(s)
Identify the project information needs of stakeholders. Identify and plan for project communications to respond to those needs.	Communications Plan
Identify quality requirements related to each project deliverable and the actions that will be taken to ensure that those requirements are satisfied. Plan for external reviews of the project's performance.	Quality Management and IV&V Plan
Define the processes and responsibilities related to changes to the project's cost, scope and schedule baselines. Define the processes and responsibilities related to change to the project's deliverables.	Change and Configuration Management Plan
Assess the impact of delivering the project's products to the user organization and individual users. Assess the readiness of the user organization and individual users to accept those changes. Identify, describe and plan for the actions necessary to facilitate those changes and reduce resistance to change.	Organizational Change Management Plan*
Using the Project Business Objectives that were defined at Project Initiation, define quantifiable performance goals, the methodology that will be used to determine whether those goals have been achieved, a schedule for testing the product's performance against those goals, the responsibility for conducting the tests and the manner in which the results will be reported.	Performance Plan
Develop a Quarterly Spending Plan for the project associated with each major budget category. Identify the source(s) of funds that will be used to satisfy the quarterly project spending requirements.	Project Budget

Planning Activity	Document
Summarize the planning that has occurred and the targets and goals of the project	Project Plan Summary

* Form not included in the Commonwealth Technology Portfolio.

7.4 Risk Management

The appointment of a Risk Manager (other than the Project Manager), as either a full-time or collateral duty, is strongly recommended for Category Two Projects

7.5 Governance and Oversight of Category Two Projects

7.5.1 Status Reporting

Category Two projects will submit a monthly Project Status Report using the format provided in the Commonwealth Technology Portfolio.

7.5.2 Internal Agency Oversight Committee (IAOC)

The establishment, roles and responsibilities of the IAOC are addressed in Section 4.2.5. For Category Two Projects, the IAOC will meet monthly, at a minimum.

7.5.3 Independent Verification and Validation

The initial IV&V review for Category Two projects will be scheduled six months after the approval of the Detailed Project Plan. Unless a project event that triggers an IV&V review occurs in the interim, an IV&V review will be scheduled annually thereafter.

An IV&V review will be scheduled to coincide with the completion of each project phase, depending on the project approach and system development life cycle being used. The project schedule should allow for completion of the review and submission of the report, before progressing to the next project phase.

See Section 12 of this standard for additional information and requirements related to IV&V.

Section 8. Category Three Information Technology Projects

8.1 Overview

This section provides specific requirements for the Initiation, Detailed Planning, Execution and Control and Closeout of Category Three Information Technology Projects. In addition, detailed Governance and Oversight requirements are also provided.

8.2 Project Initiation

8.2.1 Project Manager Qualification and Selection

Project Managers must be qualified to manage Category Three Information Technology Projects, in accordance with the Project Manager Selection and Training Standard (COVITRM Standard *CPM 111-03* GOV2003-023).

8.2.2 Project Initiation Approval Authority

The Project Initiation Approval Authority for Category Three Projects is the Chief Information Officer of the Commonwealth.

8.3 Detailed Planning

8.3.1 Planning Activities

The following matrix lists the planning activities and planning documents required for Category Three Projects. Except as noted, forms for these plans reside in the Commonwealth Technology Portfolio.

Planning Activity	Document
Define and describe the project's Deliverables. (Describe what the user will receive as the end product(s) of the project. Deliverables may include (but are not limited to hardware, packaged software, custom developed software, documents and training.)	Project Scope and Business Objectives Worksheet
Identify the tasks required to produce each Deliverable. Decompose those tasks into subtasks until they can be estimated, observed and evaluated.	Work Breakdown Structure*
Using the task list developed above, assign responsibility for the performance of the work	Optional. Preparation of an Organizational Breakdown Structure document is not required; however the planning in this area should be summarized on the Project Plan Summary.

Planning Activity	Document
Using the task list developed above, estimate the amount of time required for the performance of each task and sequence them so that the output of one task or set of tasks is available when it is required by a follow-on task or set of tasks	Optional. Preparation of an Activity Definition and Sequencing Plan document is not required; however the planning in this area should be summarized on the Project Plan Summary.
Using the documents produced above, develop a detailed breakdown of resources (other than funds) required to produce the deliverables. Resources include, but may not be limited to personnel, software tools, equipment, etc.	Optional. Preparation of a Resource Plan document is not required; however the planning in this area should be summarized on the Project Plan Summary.
Applying a calendar to the sequenced list of tasks and resources and resolving conflicts in the assignment of those resources to project tasks yields a Project Schedule	Project Schedule (Also, submit a Microsoft Project plan to document the full schedule)
Plan for the identification, evaluation, prioritization, management and response to risks that may impact the project. Identify the roles and responsibilities of the project staff with regard to risk. Plan for periodic review, update and/or removal of risks.	Risk Management Plan
Identify the cost of avoiding, responding to and/or mitigating project risks.	Risk Management Risk Cost Biennium Costs Form(s)
Identify the project information needs of stakeholders. Identify and plan for project communications to respond to those needs.	Communications Plan
Identify quality requirements related to each project deliverable and the actions that will be taken to ensure that those requirements are satisfied. Plan for external reviews of the project's performance.	Quality Management and IV&V Plan
Define the processes and responsibilities related to changes to the project's cost, scope and schedule baselines. Define the processes and responsibilities related to change to the project's deliverables.	Change and Configuration Management Plan
Assess the impact of delivering the project's products to the user organization and individual users. Assess the readiness of the user organization and individual users to accept those changes. Identify, describe and plan for the actions necessary to facilitate those changes and reduce resistance to change.	Organizational Change Management Plan*

Planning Activity	Document
Using the Project Business Objectives that were defined at Project Initiation, define quantifiable performance goals, the methodology that will be used to determine whether those goals have been achieved, a schedule for testing the product's performance against those goals, the responsibility for conducting the tests and the manner in which the results will be reported.	Performance Plan
Develop a Quarterly Spending Plan for the project associated with each major budget category. Identify the source(s) of funds that will be used to satisfy the quarterly project spending requirements.	Project Budget
Summarize the planning that has occurred and the targets and goals of the project	Project Plan Summary

* Form not included in the Commonwealth Technology Portfolio.

8.4 Governance and Oversight of Category Three Projects

8.4.1 Status Reporting

Category Three projects will submit a quarterly Project Status Report using the format provided in the Commonwealth Technology Portfolio.

8.4.2 Internal Agency Oversight Committee (IAOC)

The establishment, roles and responsibilities of the IAOC are addressed in Section 4.2.5.

For Category Three Projects, the IAOC will meet quarterly, at a minimum.

8.4.3 Independent Verification and Validation

The initial IV&V review for Category Three projects will be scheduled six months after the approval of the Detailed Project Plan. Unless a project event that triggers an IV&V review occurs in the interim, an IV&V review will be scheduled annually thereafter.

As a minimum, an IV&V review will be scheduled to coincide with the completion of the following project phases, depending on the project approach and system development life cycle being used:

- Completion of Requirements Definition, prior to the commencement of design.
- Completion of System Development, prior to the commencement of user acceptance testing.

The project schedule should allow for completion of the review and submission of the report, before progressing to the next project phase.

See Section 12 of this standard for additional information and requirements related to IV&V.

Section 9. Category Four Information Technology Projects

9.1 Overview

This section provides specific requirements for the Initiation, Execution and Control and Closeout of Category Four Information Technology Projects. In addition, detailed Governance and Oversight requirements are also provided.

9.2 Project Initiation

9.2.1 Project Manager Qualification and Selection

Project Managers must be qualified to manage Category Four Information Technology Projects, in accordance with the Project Manager Selection and Training Standard (COVITRM Standard *CPM 111-03* G̶O̶V̶2̶0̶0̶3̶-̶0̶2̶3̶).

9.2.2 Project Initiation Activities

The Project Sponsor and/or Project Manager-designee will prepare a Project Charter, Project Organization Chart and Business Case and Alternative Analysis, as described in Section 5.2. While a detailed Cost Benefit Analysis is not required for Category Four projects, the Business Case and Alternatives Analysis should, as a minimum, list the potential tangible and intangible benefits that are expected to accrue from completion of the project and the expected Return on Investment (ROI).

9.2.3 Project Initiation Approval Authority

The Project Initiation Approval Authority for Category Four Projects is the Agency Head.

9.3 Detailed Planning

9.3.1 Planning Activities

The following matrix lists the planning activities and planning documents required for Category Four Projects. Except as noted, forms for these plans reside in the Commonwealth Technology Portfolio.

Planning Activity	Document
Define and describe the project's Deliverables. (Describe what the user will receive as the end product(s) of the project. Deliverables may include (but are not limited to hardware, packaged software, custom developed software, documents and training.)	Project Scope and Business Objectives Worksheet

Planning Activity	Document
Identify the tasks required to produce each Deliverable. Decompose those tasks into subtasks until they can be estimated, observed and evaluated.	Optional: Preparation of a Work Breakdown Structure document is not required; however the planning in this area should be summarized on the Project Plan Summary.
Using the task list developed above, assign responsibility for the performance of the work	Optional: Preparation of an Organizational Breakdown Structure document is not required; however the planning in this area should be summarized on the Project Plan Summary.
Using the task list developed above, estimate the amount of time required for the performance of each task and sequence them so that the output of one task or set of tasks is available when it is required by a follow-on task or set of tasks	Optional: Preparation of an Activity Definition and Sequencing Plan document is not required; however the planning in this area should be summarized on the Project Plan Summary.
Using the documents produced above, develop a detailed breakdown of resources (other than funds) required to produce the deliverables. Resources include, but may not be limited to personnel, software tools, equipment, etc.	Optional: Preparation of a Resource Plan document is not required; however the planning in this area should be summarized on the Project Plan Summary.
Applying a calendar to the sequenced list of tasks and resources and resolving conflicts in the assignment of those resources to project tasks yields a Project Schedule	Project Schedule (Also, submit a Microsoft Project plan to document the full schedule)
Plan for the identification, evaluation, prioritization, management and response to risks that may impact the project. Identify the roles and responsibilities of the project staff with regard to risk. Plan for periodic review, update and/or removal of risks.	Risk Management Plan
Identify the cost of avoiding, responding to and/or mitigating project risks.	Optional. Preparation of the Risk Management Risk Cost Biennium Costs Form(s) is not required; however the planning in this area should be summarized in the Project Plan Summary.

Planning Activity	Document
Identify the project information needs of stakeholders. Identify and plan for project communications to respond to those needs.	Optional. Preparation of a Communications Plan document is not required; however the planning in this area should be summarized in the Project Plan Summary.
Identify quality requirements related to each project deliverable and the actions that will be taken to ensure that those requirements are satisfied. Plan for external reviews of the project's performance.	Optional. Preparation of a Quality Management and IV&V Plan is not required; however Quality Management planning should be summarized in the Project Plan Summary. There is no requirement for IV&V for Category Four projects.
Define the processes and responsibilities related to changes to the project's cost, scope and schedule baselines. Define the processes and responsibilities related to change to the project's deliverables.	Optional. Preparation of a Change and Configuration Management Plan is not required; however the planning in this area should be summarized in the Project Plan Summary.
Assess the impact of delivering the project's products to the user organization and individual users. Assess the readiness of the user organization and individual users to accept those changes. Identify, describe and plan for the actions necessary to facilitate those changes and reduce resistance to change.	Optional. Preparation of an Organizational Change Management Plan is not required; however the planning in this area should be summarized in the Project Plan Summary.
Using the Project Business Objectives that were defined at Project Initiation, define quantifiable performance goals, the methodology that will be used to determine whether those goals have been achieved, a schedule for testing the product's performance against those goals, the responsibility for conducting the tests and the manner in which the results will be reported.	Optional. Preparation of a Performance Plan is not required; however the planning in this area should be summarized in the Project Plan Summary.
Develop a Quarterly Spending Plan for the project associated with each major budget category. Identify the source(s) of funds that will be used to satisfy the quarterly project spending requirements.	Project Budget
Summarize the planning that has occurred and the targets and goals of the project	Project Plan Summary

* Form not included in the Commonwealth Technology Portfolio.

9.3.2 Detailed Plan Approval

After the completion of the CPGA Detailed Plan Risk/Complexity Assessment the Project Manager will forward the Detailed Plan to the Project Sponsor and Agency Head for approval. The Project Manager will document these approvals in writing and upload that signed memorandum to the Commonwealth Technology Portfolio repository and notify the assigned PMD Project Management Consultant that the plan has been approved.

9.4 Change Management

Project Managers must submit baseline changes to project budget, scope, schedule, and performance objectives for approval through the Change Control Request documents in the Commonwealth Technology Portfolio. Nominal Change Control Requests for Category Four projects must be approved by the Project Sponsor and reported to PMD.

Significant Change Control Requests must be reviewed and recommended by the Project Sponsor and submitted to the Agency Head for approval. When the Project Manager has completed the draft Change Control Request (prior to submission to the Project Sponsor) he/she will meet with the assigned PMD Project Management Consultant to complete the CPGA Event-Driven Risk/Complexity Assessment as described in Section 5.4.2.

The Project Sponsor/Agency Head will note his/her approval of the Change Control Request on the Approvals tab of the change control request form, in the Commonwealth Technology Portfolio.

9.5 Governance and Oversight of Category Four Projects

9.5.1 Status Reporting

After submitting the initial Project Status report as required by Section 5.6.1, Category Four projects will submit a semi-annual Project Status Report using the format provided in the Commonwealth Technology Portfolio in January and July of each calendar year.

9.5.2 Internal Agency Oversight Committee (IAOC)

There is no IAOC requirement for Category Four projects

9.5.3 Independent Verification and Validation

There is no IV&V requirement for Category Four projects.

Section 10. Enterprise and Collaborative Applications Projects

10.1 Definitions

The Commonwealth Strategic Plan for Applications defines two special types of applications, Enterprise and Collaborative.

Enterprise applications are "centrally administered applications which act as the authoritative source of data or processing for the Commonwealth."

Collaborative applications and services are "business applications and services which provide organizations and/or political subdivisions the opportunity to work together, in a substantive, mutually beneficial relationship, with a common integrated solution."

The designation of an application as "Enterprise" or "Collaborative" is based on an agency's response to questions on the Procurement Business Alignment form of the CTP.

Projects that deliver these types of applications may be designated as Major IT Projects.

10.2 Projects that Deliver Enterprise Information Technology

10.2.1 Designation as an Enterprise Project

The Project Management Division will identify potential Enterprise Projects during the Strategic Planning process and propose their designation as "Enterprise Projects" to the CIO, who will, in turn, recommend that designation to the Secretary of Administration. The Secretary of Administration will designate a project that delivers an enterprise technology asset as an "Enterprise Project" and designate a Lead Agency.

10.2.2 Lead Agency

The agency which possesses regulatory cognizance over the operational business process will normally be designated as the Lead Agency for the proposed project. For example, the lead agency for a human resources enterprise application would normally be the Department of Human Resource Management.

Under unusual circumstances, another agency may perform this role.

The Lead Agency will prepare the Pre-Select documentation and undergo the CPGA Select Risk/Complexity Assessment to establish the initial Project Category as described in Section 4. The specific Oversight and Governance requirements for the project are, in turn, based on the Project Category, except as noted below.

The Lead Agency will also prepare the Project Initiation documents, including the project charter, CBA, BCAA, etc.; nominate the Project Manager-designee; and undergo the CPGA Project Initiation Risk/Complexity Assessment.

The Project Manager will report to the Lead Agency Head. The Lead Agency Head (or designee) will approve the Project Status Reports in the CTP.

10.2.3 Participating Agencies

All other agencies participating in the project will include their participation, including financial contributions and cost of resources to be committed to the project, in their Agency Strategic Plan, IT Summary. They may also participate in the development of the Pre-Select and Project Initiation documents.

10.2.4 Project Initiation Approval

The Agency Heads of all participating agencies will review and approve the Project Initiation documents (Project Charter, BCAA, CBA, etc.) prior to formal submission to PMD. The Lead Agency Head's approval will be noted in the CTP. Approvals of the participating Agency Head(s) will be documented in memoranda which must be uploaded to the CTP.

10.2.5 Internal Agency Oversight Committee

The Project Charter will nominate the members of the project's Internal Agency Oversight Committee which will include, as a minimum, the Agency Heads of the participating agencies or their representative(s). The Secretary of Administration or CIO may modify the membership of this committee and will approve it as part of Project Initiation Approval. The Internal Agency Oversight Committee will perform the role described in Code of Virginia, § 2.2-2021 and further defined for the assessed Project Category.

10.2.6 Secretariat Oversight Committee

If all of the participating agencies are part of the same secretariat, the Secretary (or Deputy Secretary) will chair the SOC. The SOC will include the Agency Head (or representative) of each participating agency, DPB analyst assigned to each agency, the CIO (or representative) and the Secretary of Administration (or representative.)

If the participating agencies are under multiple secretariats, the Secretary (or Deputy Secretary) overseeing the Lead Agency will serve as the SOC chair. The Secretaries (or Deputy Secretaries) overseeing all participating agencies will serve on the SOC, as will all agency heads (or representatives), the DPB budget analysts assigned to each agency, the CIO (or representative) and the Secretary (or representative)

The SOC will perform the role described in *Code of Virginia*, § 2.2-2021.

10.2.7 Project Execution

Oversight and governance of these projects will proceed based on the assessed Project Category. The Secretary of Administration or CIO may direct additional governance as part of Project Initiation Approval.

10.3 Projects that Deliver Collaborative Applications

Because Collaborative Applications are often authoritative sources of data or processing for the Commonwealth, they will be governed as Commonwealth Projects, as described beginning in Section 4. The agency initiating the project will be responsible for the appropriate project initiation and project management activities. Other participating agencies will be considered stakeholders.

Section 11. Agency-level Information Technology Projects

11.1 Overview

This section addresses projects with an Estimated Cost at Completion of less than $250,000. These projects are considered to be agency-level projects, completely under the control of the agency's management; however, experience has shown that some of these projects may grow to the point that they breech the $250,000 threshold and become Commonwealth-level projects.

Agencies are encouraged to use the best practices for project management articulated in this standard to manage, govern and oversee agency-level projects, especially those related to qualified Project Managers, planning, status reporting and the involvement of stakeholders.

Agencies are also welcome to use the forms provided in the Commonwealth Technology Portfolio to document agency-level projects.

11.2 Project Execution

Agencies are encouraged to apply the appropriate levels of project management rigor to small projects, similar to that which is applied to Commonwealth level projects. Specifically, they are encouraged to prepare a Project Charter, Schedule, Budget and Scope statement for each project that is undertaken, and to appoint a Project Sponsor who serves as the senior executive responsible for the completion of the project and a Project Manager, who supervises its day-to-day execution.

11.3 Upgrading an Agency-level Project to Commonwealth-level

If, during the course of its execution, an agency-level project breeches the $250,000 estimated cost threshold or meets one of the criteria and requirements developed by the CIO pursuant to § 2.2-225, the Project Manager, Project Sponsor or Agency Head shall contact the VITA Customer Account Manager or Project Management Division and provide copies of all current project documentation, e.g. charter, schedule, budget, scope statements, etc.

PMD will assign a Project Management Consultant who will review these documents and coordinate a CPGA Event-Driven Risk Assessment of the project with the Project Manager and/or Project Sponsor. The governance and oversight requirements assigned to the project will depend upon the Project Category designation resulting from this assessment.

The PMD Project Management Consultant will also coordinate the entry of the project into the Commonwealth Technology Portfolio and the Investment Business Case Approval process for that project as prescribed in the Information Technology Investment Management Standard.

If the project is evaluated as a Category Four project and the Project Initiation and Detailed Planning documents adequately address the project's intent, scope and other management factors, the project may continue, adding in the oversight and governance measures required of

Category Four projects. The CIO may direct remediation of any inadequate documentation or may direct a temporary suspension of the project until such remediation is complete.

If the project is evaluated as a Category One, Two or Three project, the PMD Project Management Consultant will coordinate with the Project Manager and Project Sponsor to complete the Project Initiation and Detailed Planning requirements for the appropriate Project Category, as specified in the sections above. The CIO may direct modification of the Project Initiation and Detailed Planning steps to address the best interests of the agency, project stakeholders and the Commonwealth and may direct suspension of the project until Project Initiation Approval and Detailed Project Plan Approval have been completed.

Section 12. Independent Verification and Validation

12.1 IV&V Overview

IV&V is a highly successful quality assurance process carried out by an independent third party. IV&V grew out of a best practice developed in the National Aeronautics and Space Administration.

Verification and Validation are processes that seek to:

- Verify, objectively, that the results of project activities fulfill their requirements; and
- Validate, objectively, that the project products and services satisfy user needs under defined operating conditions.

IV&V adds value to project management and oversight by:

- Increasing the probability that project products and services meet their requirements;
- Improving product and service performance;
- Supporting a sponsor's decision to accept a product or service;
- Reducing development cost;
- Shortening the project schedule;
- Reducing risk; and
- Improving project management and oversight review and decision making.

Generally, Project Managers design their IV&V Plans to fit the size, scope, risk, development methodology and complexity of the project. IV&V reviews should be scheduled as Major Milestones initially in the Project Charter. During Detailed Planning, the comprehensive IV&V Plan is completed as part of the Quality Management Plan in the Commonwealth IT portfolio management tool and the IV&V schedule is revised.

The IV&V best practice is to acquire the services of a qualified and independent service provider.

12.2 IV&V Roles and Responsibilities

12.2.1 Chief Information Officer

The CIO is required by the *Code of Virginia* to oversee Information Technology Projects so that the Secretary of Administration, the Governor, and the General Assembly can be assured that IT investments are well managed and will deliver the expected outcomes and return on investment. The CIO directs the PMD to develop, implement, and manage an ongoing centralized program for IV&V.

12.2.2 Secretariat Oversight Committee

As needed, PMD provides copies of IV&V reports to the members of the SOC, who may review the reports and any analysis provided by PMD. When appropriate, the SOC directs actions or makes recommendations to the CIO.

12.2.3 Project Management Division

PMD will qualify IV&V Service Providers, maintain a list of qualified IV&V Service Providers, approve selection of IV&V Service Providers, and coordinate IV&V Service Provider activities. PMD will also analyze vendor reports for trends and issues. As necessary, PMD will prepare formal reports on the analysis of IT Projects.

12.2.4 Internal Agency Oversight Committee

The IAOC will review and approve the IV&V Plan as a component of the Project Plan. After the IAOC approves the IV&V Plan the Project Manager submits the approved plan to PMD for review and approval. The IAOC will receive and review IV&V reports and may direct the Project Sponsor and Project Manager to take specific actions to remediate findings and recommendations or improve project performance.

12.2.5 Project Sponsor

The Project Sponsor (and/or Project Manager-designee, if applicable) must identify the proposed IV&V milestones and describe the IV&V strategy for the project in the Project Charter (Project Organization). He/she must also allocate funding for IV&V in the Project Charter budget, including a contingency allowance for the potential upgrade of the project to a higher Project Category, as the result of a CPGA Risk/Complexity review, requiring more frequent reviews. The Project Sponsor will work with the Project Manager to develop the comprehensive Quality Management and IV&V Plan and will issue an IV&V Statement of Work (SOW) to the service provider(s). When multiple providers respond to the issued IV&V SOW, the Project Sponsor will select a provider for the IV&V. PMD will assist the Project Sponsor in development of the IV&V SOW and selection of the provider. The Project Sponsor is responsible for acceptance of IV&V report deliverables.

12.2.6 Project Manager

The Project Manager-designee will assist the Project Sponsor in developing milestones and budgets for the Project Charter, as necessary. Following Project Initiation Approval, the Project Manager must develop the Quality Management and IV&V Plan for the project and will

incorporate the IV&V schedule in the plan. The Project Manager must also include an allowance in the Project Budget, for the contingency of an upgrade of the project to a higher Project Category, as the result of a CPGA Risk/Complexity review, requiring more frequent reviews. Project Managers will have direct interface with the IV&V providers and will utilize the findings and recommendations in managing the project. The Project Manager will coordinate the review and responses to IV&V findings as appropriate. The Project Manager will also ensure that all final IV&V reports relating to the IT Project are loaded into the Commonwealth IT portfolio management tool.

12.2.7 IV&V Service Provider

Qualified IV&V Service Providers will have experience and training in verification and validation audits commensurate with the scope and nature of the project. In any IV&V effort, the IV&V Service Providers must be completely independent and have a separate budget and line of responsibility from that of the Project Manager. IV&V Service Providers will not be part of the Agency responsible for the project. All IV&V Service Providers must be free of any conflict of interest in a project where they provide IV&V contracted support. Conflict of interest may include contracting, sub-contracting, or actively bidding on the project. IV&V Service Providers are disqualified from providing additional consulting resources (outside of IV&V) on a project for which they are contracted to provide IV&V services.

12.3 IV&V Process Steps

12.3.1 Project Initiation

The process to implement IV&V begins with initial planning during the Initiation Phase of the project lifecycle. The Project Sponsor reviews the Commonwealth Technology Policy and PM Standard for required IV&V activities. The Project Sponsor insures that adequate funding is allocated for IV&V and that the required IV&V reviews are scheduled as milestones in the Project Charter. The sponsor will also describe the IV&V strategy for the project in the organization section of the Project Charter, and include the planned procurement of IV&V resources in the Procurement Plan.

12.3.2 Project Detailed Planning

The Quality Management and IV&V Plan, a component of the Detailed Project Plan, elaborates on the project's efforts to ensure the delivery of quality deliverables. The plan is scaled to fit the size, scope, development methodology, risk and complexity of the project by the Project Manager. IV&V reviews will include the examination of then technical, financial, and management aspects of the project and a schedule of the required IV&V reviews and reports.

The IAOC will review and approve the Quality Management and IV&V Plan as a component of the Detailed Project Plan. After the IAOC approves the plan, the Project Manager submits the approved plan to PMD for review and approval.

12.3.3 Procure IV&V Provider Services

The IV&V Statement of Work (SOW) template, which is available on the PMD website, must be used to describe the IV&V services to be procured from any qualified provider.

The Project Manager will complete the IV&V SOW and transmit it to the Project Sponsor for review/approval. After approval by the Project Sponsor, the IV&V SOW will be submitted electronically to PMD Project Management Consultant via email.

The PMD Project Management Consultant will review the IV&V SOW within 3 working days and approve or request modifications as needed. After the Project Management Consultant has approved the IV&V SOW, the agency may release it to the Commonwealth's IT Contingent Labor Services vendor. Only the Commonwealth IT Contingent Labor Services contract may be used to procure IV&V services. The Project Manager/Project Sponsor shall comply with the policies and procedures of the IT Contingent Labor Services contract.

SOW responses shall include statements of the vendor's experience and qualifications to conduct IV&V reviews. The Qualification Standard for IV&V Providers is available on the PMD website. SOW responses are reviewed by the Project Sponsor and Project Manager for conformance with the Qualification Standard, specific IV&V tasks proposed and the proposed cost of those services. The Project Manager and/or Project Sponsor will forward the proposal that they plan to select, along with a justification for that selection, to the PMD Project Management Consultant for review, prior to formally accepting the proposal. The PMD Project Management Consultant will review and approve the provider selection within 3 working days.

The Project Sponsor and Project Manager will submit a Procurement Governance Request (PGR) form for any IV&V SOW exceeding $250,000. PGRs are submitted through CTP.

12.3.4 IV&V Execution

The Project Sponsor or Project Manager will notify the selected provider and coordinate the start of the IV&V effort. The Project Manager and IV&V Service Provider will develop a detailed schedule of the project's IV&V reviews. The Project Manager will provide this detailed schedule to the PMD Project Management Consultant, who will maintain and track a comprehensive IV&V schedule for all projects under their oversight.

During the IV&V reviews, the IV&V provider will rely on existing project documentation unless doing so compromises their effectiveness or limits their ability to draw accurate conclusions. The project team will not be required to develop new documentation to feed the review process where existing documentation already includes the needed information. The IV&V Service Provider should adapt to the documentation and tracking mechanisms already in place as a source of information rather than expecting new documentation to be developed to facilitate the review. The IV&V provider should operate in a manner that is unobtrusive as possible while still completing their review by the required process.

The IV&V provider will provide initial draft reports and presentations to the Project Sponsor and Project Manager for review and correction prior to acceptance and release of the final report. The Project Sponsor and Project Manager cannot approve, modify, or reject the content of a report but may provide comments and feedback on drafts within five (5) business days of receipt of a draft. Project Managers will coordinate reviews and responses to IV&V reports by the project team including contractors and service providers.

The IV&V provider will submit final draft reports to the Project Sponsor for final deliverable acceptance. The Project Sponsor will accept or reject the individual IV&V reports. The Project Sponsor will review and return comments within five (5) business days of receipt of each final draft report. The IV&V provider will then submit final reports within two (2) business days.

The IV&V provider will produce a final report with detailed findings (both positive and negative) that include – best practices identified and employed; identified lessons learned; and recommendations for improvement. The final report will be provided to the Project Sponsor, Project Manager, and PMD. The Project Sponsor will distribute copies of the report to the IAOC. The Project Manager may distribute copies to the project team. The Project Manager will load an electronic copy of the report into the Commonwealth Technology Portfolio. PMD will distribute copies as necessary to the SOC, the CIO, and the Secretary of Administration. In addition, the IV&V provider will make presentations to the Project Sponsor, project team, and IAOC as requested.

The Project Sponsor and Project Manager shall develop a remediation plan for any topic area that is rated less than "adequate," and/or as directed by the IAOC.

PMD will analyze all reports submitted by IV&V providers. PMD will identify trends and issues, and prepare formal recommendations for decisions by the CIO and Secretary of Administration as necessary.

To ensure IV&V process improvement, PMD will maintain a knowledge base repository where received findings and recommendations are held for analysis and identification of new processes or change to existing IV&V processes.

12.4 IV&V Issue Resolution

If contract or performance issues arise with the IV&V provider during the IV&V process, the Project Sponsor must immediately notify the PMD Project Management Consultant. The Contingent Labor Services vendor and VITA Supply Chain Management (SCM) may also be involved in the resolution of IV&V issues, if appropriate. The Project Sponsor may also request a meeting of the IAOC to address the issue.

When the IAOC cannot resolve an issue, PMD will assist the Agency in coordination with the Chair of the SOC to convene a meeting of the SOC. The SOC will review and resolve the issue or make recommendations to the CIO for issue resolution beyond the scope of the secretariat.

12.5 IV&V Supplemental Information

Supplemental IV&V information can be found on the PMD website.